

Mr. Rostow

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Boyer

December 18, 1968

~~CONFIDENTIAL/EXDIS~~

Mr. President:

Walt asked me to send this up to you promptly in his absence. He has talked with George Woods several times and understands the proposal.

Harold H. Saunders

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DECLASSIFIED
White House Guidelines, Feb. 24, 1983
By g, NARA, Date 2-24-98

DECLASSIFIED
 E.O. 12958, Sec. 3.5
 NSC Memo, 1/30/95, State Dept. Guidelines
 By , NARA, Date 2-24-98

31a

ACTION~~CONFIDENTIAL/EXDIS~~

Wednesday, December 18, 1968

MEMORANDUM FOR THE PRESIDENT

SUBJECT: George Woods' Proposal on Israeli Desalting

In short, George proposes (Tab A) that we stop thinking for the moment in terms of a large 100-150 million-gallon-per-day (MGD) desalter and concentrate on a 40 MGD plant. He fully shares your goal of becoming able over the next 10-15 years to desalt seawater on a large scale, and he believes we should push ahead with this plant "as a matter of priority." He has two main reasons for recommending a smaller plant than we initially considered:

1. He believes that the next logical step in developing the technology of large-scale desalting would be to build a 40 MGD plant. This would be enough larger (more than 5 times) than present plants to provide an important test of new technology at reasonable cost (about \$58 million). We would gain almost as much in technological knowledge as we would from the \$100 million plus that would be needed at a minimum from us to help build the \$250 million larger plant.

2. Taking this smaller bite, he feels, is the only way to cut through the highly emotional argument we've had for several years between the crusaders and those who don't believe the time is ripe yet for a \$100-250 million leap of faith. Everyone--except possibly AEC--believes this has been George's main contribution.

To simplify our financial problem, George believes we should concentrate on desalting and get away from the idea of financing an Israeli electric power plant as part of a dual purpose water and power plant. The Israelis will be building new power plants right along to meet increasing demand for electricity. He doesn't see why they shouldn't provide the steam from one of these power plants as part of their contribution while we concentrate on the desalter to turn that steam into water.

Therefore, George proposes we take the necessary steps to get Congressional authorization for Interior to spend up to \$40 million on this plant. In addition to the steam from the power plant, Israel would provide \$18 million using a loan from the World Bank or some other such loan agency. While the cost of water would still be very high, George believes the total Israeli contribution would not exceed the actual value of the water to Israel. Since the power plant would cost around \$20 million, this would add up roughly to a 50-50 split between us.

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Walt asked Secretary Rusk to pull together the views of State, AID, Interior and AEC on George's proposal (Tab B). With some variations, I think it is fair to say that each of them but AEC would go along with George's general proposal that we try to move ahead with a smaller plant and that you put it in your legislative program.

AEC has no objection to going as far as George proposes but objects (especially Jim Ramey) strenuously to:

--George's strong words about "abandoning" or "holding in abeyance" the plan for a big dual purpose plant. They believe it is important to preserve the idea that this is just the first step toward a later expansion into a larger plant. Secretary Udall goes along with presenting this to the Congress as Phase I of a larger project, but he would say that Israel must fund later expansion by itself. George says he didn't mean to close any doors--just to re-focus for a moment.

--George's unwillingness to insist that the plant use nuclear fuel. His investigations persuade him that there's no economic advantage to nuclear over fossil fuel and that, if we ask the Israelis to provide the steam-producing plant, the choice of fuel ought to be theirs. AEC believes we have a strong interest in nuclear desalting. AEC further feels we should keep our strings on that Israeli decision to be sure they buy US nuclear equipment with safeguards. AEC believes it could justify a contribution of \$10-15 million to the power (not desalting) plant if it were nuclear, and if our own California plant doesn't go ahead. Secretary Udall believes we should leave the choice of fuel open. (The Israelis, like the rest of us, would like to leave the choice of fuel open until they can decide what is most economical.)

--George's judgment that it's "not possible at this time to obtain financing in the amount [\$244 million] on the terms which would be necessary." AEC feels there would be "extensive Congressional support" for a big nuclear desalting plant because of the sympathetic attitude of the Joint Committee on Atomic Energy which would review the proposal along with the two Interior Committees. George's proposal for an Interior contribution would only go before the two Interior Committees which would be less cordial.

On this last point, Secretary Udall thinks the Senate Interior Committee would be receptive but is less sure about the House. However, he points out that the FY 1970 expenditure would be only \$5 million and remaining costs would be spread over five years. Only about \$1 million

of the FY 1970 figure would be needed for Israeli planning. The rest would go for testing some promising new technology which should go into the Israeli plant. Interior should proceed with this testing in any case, and that would cost about \$4 million. AID feels Congress might see even \$40 million as "just another aid spigot" and thinks Israel should foot even more of the bill than George recommends. State recommends that we pick up about \$30 million of the \$40 million, leaving the rest to Israel.

In searching for a reasonable compromise, I would stand with George in saying that the fuel is an Israeli decision, but I would be a little less emphatic in "abandoning" the goal of a larger plant. I don't believe we are ready to commit ourselves yet, but I don't see why we shouldn't be quite honest in saying we're neither opening nor closing that door at this stage.

We asked both Don Hornig and Charlie Zwick to look at this package:

--Don feels that desalting technology has reached a stage where it's time to test a prototype of a large plant. He believes the 40 MGD size George proposes is reasonable. Given the apparently indefinite delay in building the large plant in California, he thinks it's sensible to try the experiment in Israel. He accepts George's recommendation that we concentrate on the desalter and let Israel provide the power plant to produce the necessary steam. He does not believe we should commit ourselves to future expansion of the Israeli project.

--Charlie suggests that you let this decision ride. He questions the need to spend tight resources on a large experimental plant where the economic benefits are uncertain, especially when we are straining to keep your budget down. If a large desalting demonstration is to be undertaken, he would prefer that it be done in the US where technological access to the plant is assured over time. He specifically questions the Israeli site in view of the risk of building and operating the plant in a war zone. He feels that AEC funds should not be used to put AEC in the "foreign aid" business on the scale contemplated by AEC.

For these reasons, Charlie feels that if we go ahead with the Israeli project the contribution be limited to \$30 million, and like foreign aid, we should require that procurement, construction, and operation contracts be limited to US sources. Charlie agrees with Don that we should not commit ourselves to future expansion of the Israeli project. Charlie also agrees with Woods that we would get as much technology out of the 40 MGD plant as out of the big dual-purpose-plant--and at substantially less cost.

Yesterday, I had a visit from Yaacov Herzog--Eshkol's chief assistant whom you met at the Ranch--and General Ben Artzi--George Woods' Israeli counterpart. George has shared his thinking with them informally to see whether he was being realistic. Yesterday, Herzog gave me the following message for you in Eshkol's name: Eshkol deeply appreciates your continued attention to this project, even in the closing days of your Administration. He thinks Woods' proposal is quite reasonable, and he would be prepared to discuss details of how to proceed. Herzog felt it would be helpful if you were to include this in your legislative program.

The issues are:

1. Whether you wish to put George's proposal in your legislative program. The advantage in doing so would be to put yourself on record with a proposal for a feasible next step (a) in desalting and (b) in a program which you launched with Israel in 1964. The disadvantage is that the Congress may well disregard this proposal, leaving it in worse shape than if it had been left to a riper time. I personally feel that, after four years of pushing this, we should have a concrete proposal from President Johnson on the record.

Put it in the program _____ No _____ Call me _____

2. Whether, if you put it in your program, you would seek authorization for a US contribution of the full \$40 million George suggests or press the Israelis to pay even part of the desalting research costs and go for only \$30 million. In either case, only about \$5 million would need to be appropriated in FY 1970. The argument for the full \$40 million is that Israel would build the entire power plant (roughly \$20 million plus more than \$1.5 million yearly for fuel) and assume the \$18 million loan in addition as its fair contribution. This would be about a 50-50 split between us. The argument for \$30 million is that Israel too will profit in future plants from the results of the research and should contribute to the desalter too.

\$40 million _____ \$30 million _____ Call me _____

3. Whether, if you go ahead, you make clear that nuclear fuel must be used. The only people pushing for this are the AEC. George and the rest of us think it makes sense just to leave the door open. Ben Artzi yesterday said he'd like the door left open until they can make studies to determine the most economical approach.

Leave door open on fuel _____ Nuclear _____ Call me _____

My own feeling is that, uncertain as our judgments are, we should go ahead with a plant like this soon. However, I recognize that there are still political questions to be considered and that we would probably not wish to begin construction if another war seemed likely. But these are questions for the next Administration. The main issue is whether you wish to propose this first step now or leave the issue entirely to the next team.

Harold H. Saunders

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DEPARTMENT OF STATE
WASHINGTON

November 12, 1968

Dear Mr. President:

In May, 1968, my terms of reference as your coordinator on the Israeli power and desalting project were approved, and you said in a letter to me dated May 6 that I was "to feel free to manage this in the way that makes the most sense."

I have attempted to be responsive to the terms of reference, although I have also proceeded in this complicated and highly sensitive problem as seemed to make the most sense to me in the present circumstances. My observations, conclusions and recommendations have been transmitted in the form of a memorandum to Mr. Walt W. Rostow, a copy of which is enclosed. The principal recommendation is to concentrate on a 40-million-gallon-per-day (MGD) water desalting plant in Israel; and, in my judgment, work on this should proceed as a matter of priority if the goal of massive desalting-plant capability is to be achieved within the next ten to fifteen years.

I applaud your desire to lay as much groundwork as possible for progress in desalting, to paraphrase your May 6 letter, and the above recommendation is put forward with this objective in mind. With the knowledge and experience which will accumulate with the construction and operation of a medium-sized desalting plant, it

The President of the United States
The White House

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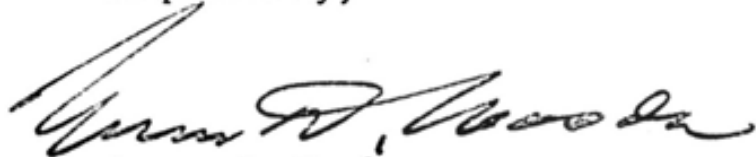
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By Uj, NARA, Date 2-24-98

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will be possible to see more clearly down the road toward the 100 MGD projects and, ultimately, toward the even larger plants of the future.

Respectfully,



George D. Woods

Enclosure:

Memorandum to Mr. Walt W. Rostow
(Copy of)

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DEPARTMENT OF STATE
WASHINGTON

November 12, 1968

MEMORANDUM FOR MR. WALT W. ROSTOW
THE WHITE HOUSE

Subject: Recommendations on Desalting in Israel

Reference is made to my letter of July 1, 1968. During the summer, the utility companies withdrew from the Metropolitan Water District (MWD) Bolsa Island project in California. While prospects do not now appear favorable, discussions still continue regarding a plant at San Onofre, California, which could produce 990 megawatts of electricity and 50 million gallons per day of water. Experiments on the large-scale module at San Diego continue. During August, I visited Israel, accompanied by Dr. Dean F. Peterson, Director of the State Department's Water for Peace Office; Professor Paul W. MacAvoy, Associate Professor of Economics at M. I. T.; and Mr. Milton Chase of the Department of the Interior, who is Chairman of the United States part of the United States-Israel Joint Board. I discussed the desalting project with Prime Minister Eshkol, the Ministers of Agriculture and Finance and other Israeli officials. Messrs. Peterson and MacAvoy have continued their studies and have been supplied with extensive information by the Israelis. I am now in a position to set forth certain observations, conclusions and recommendations, as follows:

1. It is apparent that Israel will be facing a water shortage by the late 1970's. Current Israeli estimates suggest the years 1976-1978. There is

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probably no area in the world where the inventory of water resources is more complete than in Israel or where water management practices are superior. Furthermore, there are few places where management of resources in agriculture is further advanced than in this small country with a population estimated at 2.8 million. It is ideal for developing and testing processes for water desalting.

2. I have concluded it is reasonable to assume that high quality distilled water will produce benefits to Israel equal to or exceeding 35¢ per 1000 gallons, and viewpoints expressed herein are based on this assumption.

3. It is my conclusion that the proposal for a dual-purpose nuclear plant producing 300 megawatts of electricity and 100 million gallons per day of water, which has been the basis for studies and discussions since 1966, should be abandoned, or at least held in abeyance. The recent estimate of its capital costs, on the basis of 1968 dollars, is \$244 million. In my judgment, it is not possible at this time to obtain financing in the amount and on the terms which would be necessary. Regardless of the feasibility of finance, implicit in this dual-purpose proposal is the use of methods of cost allocation which tend to subsidize water costs from profits from electric-power operations, which I consider unsound. It should be noted that the possibility of a fossil-fueled plant was investigated; and, under present conditions, there does not appear to be any definite economic advantages for either nuclear or fossil fuel in Israel.

4. I have proceeded on the assumption that there is a continuing, urgent need to develop and test processes for water desalting on a large scale - without regard to problems, financial or other, relating to commercial electric-power-generating facilities. Israel

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can and undoubtedly will finance and construct facilities for generating such additional electric power as may be required in the late 1970's, choosing the type of fuel at the time decisions on the type of plant have to be made. I have, therefore, had new studies prepared on a 100-million-gallon-per-day desalting plant in Israel, based on various alternative sources of energy. A summary of Messrs. Peterson and MacAvoy's conclusions with regard to such a plant is enclosed as Tab A, and the complete memorandum is enclosed as Tab B. The estimate of capital costs, on the basis of 1968 United States dollars, exclusive of power plant, is \$106 million to \$115 million. While the amount of capital required is far more modest than would be required under the dual-purpose proposal, it is, nevertheless, my judgment that it is not feasible to obtain the necessary financing on the terms required, under present conditions. I believe that consideration of a water desalting plant this large in Israel should be deferred.

5. I am advised that essentially the same technological information that the 100-million-gallon-per-day facility would provide could be obtained from a plant having a capacity of between 30 and 50 million gallons per day. This technology is needed without further undue delay if the goal of massive desalting-plant capability is to be achieved within the next ten to fifteen years. While detailed design studies for a 40 million-gallon-per-day water desalter in Israel have not been made, it is tentatively estimated that such a desalter, on the basis of 1968 United States dollars, would cost about \$54 million to \$58 million, exclusive of power plant. The steam could be provided from the power plant by the Israelis as part of their share of the cost.

A grant for development of technology of from \$36 million to \$40 million, which might be supported by the Office of Saline Water in the Department of the Interior, would be required. In addition, a loan of \$18 million, which might be obtained from an international

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agency (such as the World Bank) or a national agency (such as the United States Export-Import Bank or a development finance entity in Israel) would also be required. In my judgment, such financing would be available under present conditions. Reference is made to Tab C.

Such a plant would not by itself meet Israel's 1976-78 projected needs, but it could provide a first stage for later expansion.

6. The possibility of using electro dialysis or reverse osmosis on the brackish water from the Dan Reclamation Project or the saline waters of Lake Kinneret should be re-examined. It may be that significant quantities of improved-quality water could be made available at acceptable costs in this manner as a complementary source to seawater desalting.

7. I recommend:

- (a) A decision be made to concentrate for the immediate future on arrangements for design and construction of a 40 million-gallon-per-day water desalting plant in Israel;
- (b) The Secretary of State, the Secretary of the Interior, and the Atomic Energy Commission be instructed to take steps to implement the above decision forthwith; and
- (c) Steps be taken to concurrently obtain (1) United States legislative authorization for Office of Saline Water support (of not more than \$40 million) for the purpose of providing finance for such a water desalting plant, and (2) a loan of

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about \$18 million from an international agency (such as the World Bank) or a national loan agency in either the United States or Israel.

A handwritten signature in blue ink, appearing to read "George D. Woods". The signature is fluid and cursive, with a large initial "G" and "W".

George D. Woods

Enclosures:

- Tab A - Summary
- Tab B - Complete Memorandum
- Tab C - Memorandum to me from
Dr. Peterson and
Professor MacAvoy

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A

SUMMARY

THE ECONOMICS AND FINANCE OF AN ISRAELI DESALTING PLANT PRODUCING 100MILLION GALLONS PER DAY

The attached paper discusses the estimated costs and benefits of a proposed 100 MGD desalting facility and presents a plan for financing such a plant. The paper concludes that the total unit costs of water are most likely to be about 62¢/1000 gallons, based on annual fixed charges of 10%, while other highly probable costs range from 58¢ to 65¢/1000 gallons. The "best-estimate" cost of the hardware for the desalting plant only (i.e. exclusive of steam producing facilities) in 1968 prices is \$74.5 million and the additional costs of general plant facilities, engineering design, interest and contingency during construction brings the total construction costs to \$106 million. The cost, however, could be as high as \$115 million. This would imply unit water costs from construction charges of the water plant only of from 34¢ to 37¢/1000 gallons. The total costs of supplying steam to the desalting facility and of operating and maintaining the desalter range from 24¢ to 28¢/1000 gallons; there is no significant economic advantage for either nuclear or fossil fuel.

The value of irrigation water to Israeli agriculture is calculated to be close to 25¢/1000 gallons. The additional benefits from using distilled water as a dilutant in agricultural and industrial uses is estimated to be on the order of from 6¢ to 10¢/1000 gallons. The paper concludes that the water produces benefits to Israel equal to or exceeding 35¢/1000 gallons.

The paper then discusses how the plant might be financed in order to advance technology when the economic and social returns from the distilled water equal roughly one-half the total economic cost. The financial solution proposed is based on two assumptions: (a) that Israel will operate and maintain the desalter and will supply the steam, at a cost of approximately 25¢/1000 gallons; and (b) that Israel can only be expected to pay for the 35¢/1000 gallons of estimated value (or benefit) to the Israeli economy which the proposed 100 MGD desalting plant will contribute to that economy.

Interest and repayment of a loan to Israel of \$44 million at 6½ percent interest with a 10-year grace period on repayment would cost 10¢/1000 G which, in addition to the 25¢/1000 G that Israel pays for steam, operation, and maintenance, would bring Israel's total cost to 35¢/1000 G. An additional \$62 to \$71 million in the form of a grant for the advancement of technology would then be required to provide the \$106 to \$115 million needed to finance the construction of the desalting plant.

All costs are expressed in 1968 dollars.

November 4, 1968

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B

MEMORANDUM FOR: Mr. George D. Woods

November 4, 1968

FROM: P. W. MacAvoy and D. F. Peterson

SUBJECT: The Economics and Finance of an Israeli
Desalting Plant Producing 100 Million
Gallons Per Day

The proposal for a large-scale water desalting plant in Israel has been subject to intensive economic analysis here and abroad. This has been in order to forecast costs of building the plant in the 1970's and operating it for thirty years thereafter. But a wider purpose is evident in much of the work. Many studies have been concerned with forecasting the value of water in Israeli agriculture so as to determine "how much concessional or grant financing or continuing subsidy would be required if this project were undertaken." These studies have sought to measure the benefits in agriculture from adding 100 MGD of distilled water to the system.

These are the purposes of the review undertaken here. The difference between economic costs and benefits must be shown first. This is to be followed by estimates of the amount of direct grants, and of concessional financing, required to make it possible for the costs to be equal to the benefits.

The studies done here and abroad would seem sufficient for first-round forecasts of both costs and benefits. No single study shows a "firm" or "accurate" estimate of costs, or of the value-product of water. But many result in similar estimates, and a number of them take quite different routes to arrive at these estimates. The consistency of the results from quite different approaches would seem to make it possible to rely on these studies. Consequently a plan for financing the project is proposed, calling for six and a half percent, 34 year loans for a portion of the required capital and concessional grants for the remainder on the water plant.

The forecasts and the financial program are outlined below. First, the costs of the water plant are estimated. This is followed by a review of estimated energy costs, and a summary of the total costs of desalted water expressed in cents per thousand gallons. Then estimates are made of the benefits or value of desalted water in agriculture to produce more food output and to dilute saline water from other sources. Last of all, the amount of required concessional financing is estimated. All costs are expressed in 1968 dollars without allowance for future inflation.

The Size of the Desalting Plant

The United States-Israeli Joint Board conducting studies of desalting in Israel has centered its attention on a plant capable of producing 100 million gallons per day (MGD). The reasons for interest in output this large are primarily historical. The forecasts of the demand for water made by TAHAL (the Water Planning Agency in Israel) indicates the appearance of excess demand towards the late 1970's of more than 130 million cubic meters per year.¹ This is equivalent to 110 million gallons per day, but the amount needed to bridge the gap between demand and supply at present or forecast future prices may greatly exceed 110 MGD. In fact "such developments as large scale supplementary irrigation of grain crops in the Negev, supply to the Gaza Strip, delay in the implementation of the Dan Region Water Reclamation Scheme may add considerably to the severity of the problem".² The Israelis have provided considerable documentation for forecasting a gap of more than 100 MGD. A desalting plant has been one possible means by which to close the gap.

The Construction Costs for the Water Producing Portion of the Desalting Plant

Any plant that is going to produce 100 MGD needs access to a source of energy and capital equipment to carry out the salt-removing part of the process. Salt removal is to be done by flash evaporation of brine water followed by dis-

¹ Data and Forecasts for Timing the Provision of a Desalting Plant in Israel, August 1968, PN842.

² Ibid.

tillation of the steam. This quite orthodox approach, used on ocean-going ships for generations, has a number of interesting variations. Recent research has shown that a new arrangement of vessels called Vertical Tube Evaporation (VTE) promises significant increases in efficiency. The Israeli plant can be constructed to test for these promised increases in efficiency, so that this project contributes to the research output from the first round of large scale plants. The costs of producing water and research results may be divided into two parts: (1) the cost of orthodox facilities to carry out distillation in the usual manner; (2) the added costs of installing the new process for the first time.

The construction outlay for the distillation plant laid out in the orthodox way has been estimated to be \$71.2 million. Kaiser Engineers, Incorporated, showed in its 1968 Report on desalting in Israel that plant hardware costs this much and that the added cost of general plant facilities, engineering design, interest and contingency during construction prorated to the water facilities brings these costs to \$101.7 million.³ Kaiser's new design uses a less efficient but simpler layout than in 1966 which reduces capital costs in the water plant. But 1967-68 price inflation has raised these costs by roughly 6 percent per annum (in particular, the price of copper increased approximately 9 percent over the fiscal year 1967-68). The present forecasts in 1968 prices for construction in the middle 1970's or thereafter center on \$74.5 million for the distillation unit and \$106 million for the total water facility. Future costs could be either higher or lower than this estimate. Consider first some of the reasons for costs substantially lower. The plant can be redesigned to provide a larger volume of heat at lower efficiency of utilization for the same water output, so as to trade water plant capital costs for fuel costs in the energy source. The tradeoff results in the reduction in the number of stages in which flash evaporation takes place and thus a reduction of components

³ Cf. Kaiser Engineers, 1968 Report. The prorating of costs is necessary because the Kaiser studies assume that water and electricity are produced in the same plant facilities and because there are joint costs of design and construction for these two facilities. The costs have been prorated here on the basis of the percent the specific costs of the water plant are to the total of specific water and electricity plant costs.

such as pumps, pressure vessels and tubing. Studies done in Israel moving towards the limits of this tradeoff show costs of \$84.9 million for the water plant connected to a gas cooled nuclear reactor for energy, and costs of \$85.4 million for the water plant when attached to a conventional low pressure steam boiler.⁴

The costs could go well beyond this range, as a result of systems not working well. There has not been enough operating experience to establish firmly the operating rate of 85 percent assumed in all of these cost studies. If the Israeli plant were the first large plant, its design operating characteristics might be so new as to preclude more than 80 percent operation. The tubing--still in its first years of experimental operation in multi-stage evaporation processes in San Diego--might be a particular source of malfunction requiring the plant to be shut off more than 20 percent of the time. The additional costs of 5 percent more outage come to more than \$10 million in additional capital expense.⁵

Costs might be higher because of higher components prices in the period between now and the date of completion of the Israeli plant. Prices have gone up in the past two years: "plant costs (have) escalated by 6 percent from the 1967 basis estimate to the mid-1968 basis estimate...the price of copper (a principal material used in evaporative bundles) increased approximately 9 percent from 38 ½ cents per pound in June 1967 to 42 cents per pound in June 1968".⁶ But whether they will continue to increase during the construction period is another matter. Most of the increases are part and parcel of three

4 F.S. Aschner, et al, "Feasibility of Nuclear Reactors for Sea Water Distillation, Third Year Progress Report". Technion, 1964)

5 This additional expense is necessary to raise the rate of capacity of the design facilities operated at 80 percent from 94 MGD to 100 MGD; cf. Kaiser Engineers, 1967 Report: Effect on Costs of Increasing Capacity to 300 megawatts, Table IX; cf. also, P.W. MacAvoy and D.F. Peterson, The Engineering Economics of Large Scale Desalting, Working Paper 341-68, Alfred P. Sloan School of Management, M.I.T. (June 1968) p.60

6 Cf. Kaiser Engineers, 1968 Report, footnote 7

to five percent annual price inflation in the United States and Israel and thus are not relative cost increases for this type of construction project. Also they are based on particularly acute short-term increases in the demand for copper products in the middle 1960's while longer-term forecasts continue to call for reduced copper prices.⁷ Costs of this plant relative to those for other capital goods should not increase unduly because of general price inflation.

There is a third reason for costs higher than forecast by Kaiser. The plant may not be an orthodox plant, but rather may draw heavily on experiments with the new VTE technology. First plants of a kind -- as this would be -- inevitably have higher costs than forecast on old technology. But here no new forecast on VTE designs is available: all that can be concluded is that the outside estimate of "high" costs is very likely to hold. At the outside, the plant finished in 1975 should require close to \$115 million of capital expenditure.

All of the studies of the orthodox plant indicate that costs will be between \$90 and \$115 million. The central estimate is that from the most detailed report: the Kaiser Engineers' studies indicate that cost will be \$105 to \$106 million. But it is as likely that costs will be \$115 million.

7 Cf. O. R. Herfindahl, Copper Costs and Prices (Johns Hopkins, 1957), where the long-term forecasts centers roughly on 35 cents per pound in 1965 dollars.

The Capital Charges on the Plant

These are economic costs based on expecting that the economy of Israel will have to pay approximately $8\frac{1}{2}$ percent interest and $1\frac{1}{2}$ percent capital recovery, insurance and liability charges each year. The marginal sources of capital inflow are commercial loans or loans from other sources (\$55 million in 1965) and the State's Independence and Development Loans (\$33 million net in that year). It is not unreasonable to expect that substantial additions to capital inflow -- perhaps sufficient to fund the desalting operation -- would be forthcoming if interest charges were somewhat greater than those presently prevailing on the Independence Loans. The exact costs of this marginal capital -- that is, the interest charges on marginal loans expressed in real terms -- are not known. No information is available on real interest charges on commercial loans, but these loans seem to be mostly credits from suppliers to particular industries and their composition changes so greatly from year to year that prediction is almost impossible. There is no forecast by Israeli banking institutions of changes in terms on non-commercial loans, nor is a forecast possible without access to confidential data on terms being offered at the present time. The Independence and Development Loans have been made at the nominal rate of $3\frac{1}{2}$ percent to 4 percent, with selling expenses equivalent to another percent, and with a nominal twenty-year term; but the buyers have demanded early redemption so that the actual average duration of these loans was only twelve years during the 1950's and the selling expense spread over this smaller volume of funds per unit time raised the effective rate to from 12 to 13 percent. Bank of Israel, Annual Report, 1965 Jerusalem, May 1966, Sivan 5726, p. 60 The effective rate is not the real rate; given annual increases in asset prices (of more than 5 percent per annum in the period 1958-1965), fixed interest and principal could be paid with less resources after 1960 than before. Dr. Ben-Shahar of Hebrew University assumes that a 4 percent annual rate of price increase will take place in the late 1960's and the 1970's (slightly less than the 4.4 percent experienced during 1963-1965) which results in a real rate on Development Loans of 7 percent to 8 percent per annum. Correspondence with Dr. Ben-Shahar has established this rate as the best prediction in 1967 of future costs of capital in the absence of substantial devaluation of the Israeli pound (to exchange levels from 4:1 to 5:1 of pounds to dollars). With devaluation real levels will be in the

range from 10 percent to 11 percent per annum. Then present and near-future costs of capital are at least 8 percent per annum.

The costs of water from building the distillation facility are shown in Table 1. The lowest cost estimate implies unit water costs of 27.4 cents per thousand gallons for capital equipment alone. The central estimate of initial capital costs implies unit water costs of 33.9 cents per thousand gallons. The highest probable capital expenditures on distillation components imply unit water costs of 37.1 cents per thousand gallons.

Table 1: Capital Costs for the Distillation Plant

<u>Estimate</u>	<u>Total Capital Costs</u> (millions of \$)	<u>The Capital Costs of Water</u> (cents/1000 gallons)
Low	85	27.4
Expected	105	33.9
High	115	37.1

Note: The unit water costs assume annual fixed costs of 10 percent, 85 percent operating rate, and 100 MGD.

The Costs of Energy to Operate the Distillation Plant

The construction and operation of the steam system to provide heat and electricity for evaporation could be completed for capital expenditures as small as \$18 million or as large as \$90 million. The smaller expenditure would be for building a fossil fuel boiler that would incur extremely high fuel costs when put into operation. The \$90 million would be the expenditure for a large scale nuclear reactor which provided thermal energy for electricity production as well as for brine evaporation.

The capital and fuel expenses in desalting depend, in other words, on the amount of energy to be provided by a boiler or reactor where the energy is to be used for both electricity and water production. The timing of the construction of a 100 MGD distillation plant suggests that water could be coupled with electricity output of 300 megawatts. The Israel Electric Company has made consistent and firm forecasts of demand for 300 megawatts of additional capacity in 1975.⁹ There is considerable basis for using 100 MGD and 300 MW as the largest reasonable sizes of the facilities using output from a thermal energy plant. But there can be combinations of less water output with 300 MW of electricity, or of 100 MGD with less electrical output.

The exact size of the energy plant should be determined by the least-cost combination of capital and fuel for those amounts of electricity and water output which promise the greatest economic benefit. The least-cost combination cannot be known until detailed design studies have been completed immediately before the plant construction begins. But there are four

9 Cf. Forecast of Electric Generating Capacity Requirements up to the Year 1980: August 1968. This forecast shows 428 megawatts of capacity being installed up to 1971, and projections of installations between 800 megawatts and 1000 megawatts from 1971 to 1980 -- approximately 300 megawatts of additional capacity each three years. These forecasts are remarkably similar to those made earlier -- as in Kaiser, 1965 Report, and the 1964 Joint Board Report. They are consistent with growth in per capita incomes and population in countries at the same stage of economic development as Israel.

detailed studies which have been completed that look to different fuel sources and -- thus fortuitously -- provide an approximate range of cost estimates based on different relative fuel and capital prices. Two of these are Technion studies, the first of a fossil-fueled boiler and the second of a gas-cooled reactor;¹⁰ the other two are the 1965 Kaiser studies of a fossil fuel plant, and of a light water reactor as updated by successive 1967 and 1968 studies.¹¹ None of these studies produce estimates of the lowest possible costs of energy for water production, but all are within the range of probably lowest costs given that they approximate optimum capital fuel ratios for reasonable ranges of prices for fuel oil, nuclear fuel and capital equipment.

The costs for energy including water plant operation and maintenance costs for the water plant are shown in Table 2. They are composed of separable costs directly attributable to water production -- such as the cost of electricity used in pumping brine and distilled water -- and the joint costs of the capital and fuel in the boiler allocated to water on an "available energy" basis (this is to charge to water the cost of producing energy which is available for use in electricity but is used to produce water instead). The initial construction costs vary over a range from \$8 million to \$40 million, depending on whether the plant is a simple oil burner or a capital intensive nuclear reactor; the annual fuel and operating expenses vary from \$4 million to \$6 million. But the costs of capital and fuel for energy production, on the basis of cents per thousand gallons, are remarkably similar in the four studies. The energy from the fossil-fueled boiler costs from 24 to 25 cents per thousand gallons, assuming that oil costs are as much as \$13 per metric ton and that the plant is small (or that the amount of energy produced for electricity is limited by electrical capacity of 200 MW). Energy from the nuclear plant is expected to cost from 26 to 28 cents per thousand gallons of water, given that the present costs of nuclear fuel hold in the future and that price inflation is not relatively greater for these plants than for the construction industry as a whole.

10 F.S. Aschner, et al, op. cit., Table 1

11 Kaiser Engineers, Catalytic Construction Company, op. cit., and Kaiser Engineers, Catalytic Construction Company, Support Study Number Two: Fossil Fuel Dual Purpose Plant (prepared for the United States - Israel Joint Board, February 1966, Report No. 66 - 1R(2), Job No. 6452).

The cost of energy from the fossil fuel plant could be significantly less than 24 to 25 cents. Forecasts of oil costs over the next five years center on abundant supplies in tanker lots costing from \$8 to \$9 per metric ton at the Persian Gulf.¹² The Israelis should be able to purchase on such a basis, rather than the forecast posted price \$3-\$4 higher, because they will have immediate and continued access to the market when construction of their forty-two inch pipeline from the Persian Gulf across Israel is complete. This pipeline should establish a viable contract market for commercial tanker loads at one of their major ports on the Mediterranean; the operators of the Israel desalting plant ought to be able to obtain oil on terms as favorable as those now obtained by the best bargainers in Denmark and the Netherlands. Then, the costs of fuel oil including transportation costs for the Israelis from Iran to the Ashdod desalting plant ought to be from \$9.50 to \$10.50 per ton. There is one more cost to be incurred; the removal of sulphur from the fuel oil to reduce air pollution in the Ashdod - Tel Aviv region. These costs should be from \$1.00 to \$1.50 per ton, so as to make the total fuel costs from \$10.50 to \$12.00 per ton. These result in the cost of energy for water from 1 cent to 2½ cents lower than shown in Table 2. The costs of fossil fuel energy should range from 21 to 24 cents per thousand gallons.

12 The detailed forecast of Dr. I. Neeman of the Israeli Government began with this estimate; it is close to those made in informal conversations by Professor M.A. Adelman of the Massachusetts Institute of Technology.

Table 2: The Costs of Energy for Desalted Water

<u>Design Study</u>	<u>Output (MGD)</u>	<u>Costs Attributable to Water Production</u>		<u>Energy Costs, in Cents Per Thousand Gallons of Water</u>	<u>Total Water Costs, in Cents Per Thousand Gallons</u>	
		<u>Annual Fuel and Operat- ing Expenses (\$ million)</u>	<u>Initial Construction Costs of Water Portion of Energy Plant (\$ million)</u>		<u>Expected</u>	<u>High</u>
Technion Fossil Fueled Plant	93.3	6.0	8.5	23.7	57.7	60.8
Technion Gas Cooled Reactor	102.5	4.3	39.4	25.9	60.1	63.0
Kaiser Fossil Fueled Plant	100	5.8	19.5	25.0	59.2	62.1
Kaiser Light Water Nuclear Reactor	100	5.4	34.5	28.0	62.2	65.1

Note: Costs include water plant operation and maintenance, and are in 1960-65 prices, except for the Kaiser Reactor, which is in 1968 prices. Ref. Table I. Allocation of Capital, Annual and Unit Costs of the Israeli 300 MWe Salable Power, 100 MGD Desalted Water - Determined in Accordance with the ORNL Method (ORNL-TM-1615). Addendum to Kaiser 1967.

The Total Costs of Desalted Water

A summary view of the four studies shows the similarity of total water costs, and the differences in the timing of the expenditures. The water plant using energy from a nuclear reactor has higher initial construction expenses but lower fuel costs than the water plant taking energy from a fossil fuel boiler. But the estimates of costs in the same technology are remarkable similar. The Technion and Kaiser nuclear studies show construction costs for water, and for the energy plant components allocated to water production, of \$145 million and \$141 million (annual energy costs are \$4.3 and \$5.4 million respectively). The fossil fuel plant studies show some cost differences between them, with the Technion study forecasting initial construction costs of \$114 million and the Kaiser study expecting costs of \$125 million (with annual operating expenses of \$6 million and \$5.8 million respectively).¹³

Altogether, the costs in cents per thousand gallons show little difference. They range from 57 cents, for fossil fuel energy and expected costs of construction of the water plant, to 62 - 65 cents for energy from a nuclear reactor with high costs of construction of the water plant components.

The different design studies lead to two conclusions.

First, it is not possible to make a firm prediction as to the cost superiority of one of the energy sources. The estimates of the costs of water using fossil fuel energy are somewhat lower than those from plants using nuclear energy. At best, the costs of water produced from Iranian oil might be as low as 55 cents per thousand gallons. But this could only result from an extremely fortunate coincidence of events -- from "low" or "target" costs of construction of all components in the plant along with the lowest conceivable set of oil prices in the Middle East on sales to Israel. It is far more likely that nuclear and fossil energy will have quite similar forecast costs up to

¹³ The higher initial expenses in this comparison are associated with the Kaiser design, which most probably results from the unduly restrictive constraints on the ratios of outputs in that particular design.

the time that the engineering design is complete. At that point a final forecast, and choice of the low cost fuel, should be made.

The second conclusion is that the costs of water are most likely to be 62 cents per thousand gallons, while other highly probable costs will range from 58 to 65 cents per thousand gallons. The 62 cents will be the result of middling success in constructing the first large-scale plant using American technology in a foreign country, and from purchasing some fuel for more than the lowest conceivable prices. It would include all of the costs of capital involved in shifting \$115 to \$145 million of initial capital expense from other areas of the economy to constructing a water plant and the water using share of the energy plant.

The Benefits from the Desalting Plant for the Israeli Economy

The output of the distillation plant would blend with the ground and surface waters already in the Israeli water system. The additional supplies would have great productivity in agriculture and the additional agricultural product has monetary value. The change in the total receipts from the production of agricultural goods as a result of the increase in water supply is the best indicator of the benefits to the economy from the desalting plant.

The additional agricultural output does not account for the entire value of water from an Israeli desalting plant. Distilled water from such a plant has value over and above that from derived output because it adds to the quality of all the water in this country's system. More and higher quality agricultural products can be produced from the given supply of ground water since the salt concentration of these supplies is reduced by adding the distilled water.

The Value of Agricultural Production from the Desalted Water

The water from the desalting facility at Ashdod will enter the national water carrier in the South and West portion of the country so as to add to supplies in the expanding Negev agriculture region. The water will be used in agriculture because this is the marginal use. That is, in the absence of additional supplies from the desalting plant or some other new source, agriculture in the Negev will be curtailed and the water now used in the region will go into expanded industrial and household uses.¹⁴ Three estimates can be made of the value products of additional agriculture.

The first appears in a paper by Dr. Ezra Sadan entitled "On the Value of Water in Agriculture" appearing in the Israel Economic Quarterly, October 1967 (Hebrew). This analysis typifies the most direct approach to measuring value: forecast the total revenue to be received from additional agricultural output and subtract the cost of other resources besides water. The net difference indicates the maximum possible demand price of the economy for the additional water. Sadan's estimates from the "residue" method show an average gross value per thousand gallons of water throughout Israeli agriculture of 47.3 cents. The net value, after paying the wages of labor and the necessary competitive return on capital, comes to 17.4 cents per thousand gallons. This average value is low because the costs attributed to other resources is high. The wages of labor in Israeli agriculture are determined by collective bargaining, and are close to the highest in the world; subtracting these wages, rather than the opportunity costs of labor, is in effect to attribute to labor some of the value product from water. The cost of capital is taken to be a six per cent interest charge plus payment of capital grants. This interest charge is high - it is equal to the average productivity of capital in the economy as a whole rather than to the low risk, low return of capital in agriculture - and if reduced would add to the

¹⁴ Two points need to be made more explicitly. First the forecast by Israeli experts long experienced in deriving additional water supplies stress the lack of alternative supplies. The desalting plant is the only facility short of a few projects to catch surface runoff which are probably equally expensive with the estimates shown above for desalting. Second, expanding industrial and household demands most likely will require reallocation of

amount attributed to water.¹⁵

The second and independent analysis by an Israeli economist indicates value product significantly greater than shown in the Sadan estimate. Professor Dan Yaron, in The Demand for Water by Israeli Agriculture (Rehovath, Israel, 1966) constructs a linear programming model of Israeli agriculture in which there are thirteen regions competing for a fixed amount of resources other than water. Then 200 million cubic meters annually of water are added to the system and all resources are distributed to various regions so that the marginal value products of all supplies of water are equal after subtraction of transportation costs. The study closest to those conditions in the Negev in 1965 has water allocated so that the marginal productivity is determined mainly by field crops in that region. Value of the additional water from a desalting plant is calculable in three steps. First Professor Yaron shows the marginal value of field crops as 15 to 18 agorot per cubic meter, plus 7 to 10 agorot more if these crops have to be cut back from present levels to some level compatible with a fixed supply of water in the system and more pressing demands elsewhere. He assumes that the supplies of land, labor and capital are fixed in total amount but re-allocated from dry farming to irrigated production as more water is added. Then the 22 to 28 agorot per cubic meter is equivalent to the average value product for each cubic meter of 200 million cubic meters per annum. If it can be assumed that the marginal value product on the last 117 million cubic

14 present supplies from agriculture to urban use in the absence of the desalting plant. Cf. Data and Forecasts for Timing the Provision of a Desalting Plant in Israel: Water Planning for Israel Limited, August 1968, PN842. Correspondence with Israeli economists casts some doubt on the second statement, based on the expanding industrial development being in those sectors of the economy which do not use as much water per unit of output as in the presently developing sectors. But there is no alternative forecast.

15 Cf. N. Halevi and R. Klinov-Malul, The Economic Development of Israel (Praeger, 1968) page 133 where average returns to capital in 1965 prices average between 6 and 7 per cent since 1962.

meters per annum (100 MGD) is equal to this average value product, then the water produces output worth 24 to 30 cents per thousand gallons at present exchange rates.

The third forecast of the value product of water in agriculture can be put together from working papers provided by the Government of Israel in the fall of 1968. One working paper from the Ministry of Agriculture forecasts projections of water use in agriculture in 1980.¹⁶ The marginal crops then are vegetables and some fruit crops so that the value product in agriculture from the desalted water is the net revenue from 117 cubic meters per year earned on vegetables and citrus.

The second Ministry of Agriculture paper provides a forecast of typical net revenues. The Ministry shows, in The Forecast of Paying Ability for Horticulture, that the net returns plus payments for water by the farmers on nine vegetable crops will be approximately 34 agorot per cubic meter at the farmer's gate. If there are no additional transportation costs from Ashdod to the new farming regions in the Negev, the value product of the water is then forecast at 36.8 cents per thousand gallons. But some of the additional supplies are going to go to new farms which require new delivery systems; in that case, the net value product of water will have to be reduced by the additional transportation costs to approximately 24 to 26 agorot per cubic meter or 26 to 28 cents per thousand gallons.

The three studies together show that the benefits from water in agriculture will probably be close to 25 cents per thousand gallons. Less benefits can be forecast from analyses based on very high payments of income to other input factors, as in the Sadan analysis. On the other hand, quite optimistic assumptions as to water transportation costs and the production of extremely high value fruits and vegetables can result in a forecast close to 37 cents per thousand gallons. But the range of most probable or reasonable assumptions emphasizes returns for water in the middle of these two estimates.

¹⁶ Cf. Ministry of Agriculture, Agriculture and Development Planning Center Over-all Planning Department, Forecast of Demand for Water in Agriculture in 1980 (Tel Aviv, September 1968), page 7. These indicate over-all increases in water use of 68 million cubic meters per annum, but there is also a shift of another 146 million cubic meters out of grain crops and fodder crops into vegetables, fruit plantations and citrus production. The shift out of fodder and industrial crops is almost complete. Therefore, no additional shift could be accomplished in the absence of additional water from the desalting facility.

The Benefits from Desalted Water as a Dilutant

Since water-borne salt is damaging and costly to agriculture and industrial users, distilled water from the desalting plant has a special value because it can be used to dilute water from natural sources with high salt content. In particular, the salt-free output from the proposed Israeli plant may produce two additional sources of real benefit to the economy. The first is in leaching of the soil. The greater the salt content of irrigation water the larger is the leaching requirement. Desalted water reduces the over-all salt content in the irrigation system when added to other supplies, so that the quantity of leaching water can be reduced and freed to be used elsewhere. The second benefit is in the elimination of crop damage due to excess salt. Plant growth is inhibited by water salinity. The addition of desalted water to a slightly salty system will add to the growth of all crops from increased general water quality.

The distilled water is expected to have an additional value of 3 cents per thousand gallons as a result of diluting the salt content of other supplies. This is shown by an economic view of the chemical effects of reduced salinity and is supported by agricultural analyses of similar conditions in this country and by one hydrologic study done by analysts at the Hebrew University. ¹⁷

The desalted water is worth another 3 cents because of its benefit in industrial dilution. As the result of the addition of supplies of distilled water, the water used in industry is softened. This saves the cost of softening for industry in the major population centers of the country and the total savings is expected to come to 3 cents per thousand gallons of distilled water. ¹⁸

The Israeli Government has provided a similar but slightly higher estimate of the effects of dilution. In a paper entitled the Effect of Desalting Plant on Reducing the Salinity of Water in Southern Israel, the Ministry of Agriculture and

¹⁷ Cf. P. MacAvoy and D. F. Peterson, The Engineering Economics of Large-Scale Desalting, op cit., pages 88-112. Cf. also Dan Yaron, op. cit.

¹⁸ Cf. P. W. MacAvoy and D. F. Peterson, op. cit.

the National Water Carrier show that the addition of water from a desalting plant will permit the water carrier to incorporate a certain amount of water reclaimed from sewage. The sewage water has high salt content. If the permissible rate of salinity for water use in agriculture is set at 175 parts per million chlorides, the output of the desalting plant will allow the use of an additional 110 million cubic meters annually of reclaimed sewage water. The sewage project ought to produce water at costs close to 15 cents per thousand gallons while the additional reclaimed water ought to produce output worth 25 cents per thousand gallons (equivalent to, or slightly less than, the value product of water from the desalting plant in Negev agriculture). Then the additional dilution value of the water is equal to the 10 cents per thousand gallons of net value product from using the reclaimed water.

This is to forecast that the "external effect" of distilled water added to the national water carrier will be additional value product of from 6 to 10 cents per thousand gallons. The forecast value is likely to be in the middle or high end of this range, given pessimistic results in the current research on the effects of salinity on citrus crops, and pressing demands for softer water by industry. An over-all assessment of this dilutant effect, along with the direct value product from Negev agriculture, leads to the conclusion that the water produces benefits equal to or exceeding 35 cents per thousand gallons.

Financing the Difference Between Costs and Benefits

Given the natural uncertainty attached to the first large-scale construction project in desalting, both the costs and the benefits from an Israeli plant are subject to wide variations. But perhaps the research results now available are sufficiently complete to forecast "target" or "expected" costs of 62 cents per thousand gallons for the water plant and for energy to operate it. The benefits to the Israeli economy are going to be significantly less than these costs. The total "expected" benefits of the new water are close to 35 cents per thousand gallons, or a little more than half the cost.

There are other gains which have not been accounted for. The advance in the science of desalting which could accompany the construction of a large-scale plant with new research components has measurable economic benefit -- these benefits may be as great as one-half the cost of the Israeli plant, even though no research has been done on providing a quantitative measure of such benefits. There are intangible, but potentially large, gains from locating a large-scale plant in Israel at this time. Both Israel's water management and its agriculture are highly advanced so that the economic and social consequences of introducing desalted water into the Israel system could yield useful knowledge.

Financial assistance has to take account both of the limits on economic benefits accruing to the Israelis and the limits on research benefits to the outside world. The proposed program is in three parts: Israeli participation; loan participation by the World Bank or other international or national lending agency; and a research grant, presumably from the United States.

The Israelis receive 35 cents in benefits of the 62 cents of costs per thousand gallons. They should then bear the burden of 35 cents per thousand gallons of construction and operating expenses. Their responsibility would be to: (1) provide for the construction and operation of any necessary energy-producing facilities and operate the water plant; and (2) repay the loan on the construction of the water plant.

Making the Israelis responsible for providing the energy for water production will give reasonable assurance that they will choose the most efficient - or least cost - method for

adding on to future electricity-producing facilities, and should induce them to make the choice of energy source on the basis of long-range cost forecasts at the time of actual construction. The energy and operation and maintenance costs are forecast to be in the neighborhood of 25 cents per thousand gallons.

The remaining 10 cents per thousand gallons of Israeli responsibility would be the required repayment of a \$44 million, 6½ per cent loan from the World Bank or similar agency. This loan would be tendered for covering part of the cost of construction of the water plant. It would run for the thirty-year life of the plant, with a grace period on principal repayment while the plant is being constructed and put into operation. ¹⁹

A grant would be required to pay for the rest of the water plant. The forecast costs of the plant are \$106 million, so that at least a \$62 million grant would be required. The high costs -- those at the top of the probable range of construction expenses -- could be as much as \$115 million, so that a \$71 million grant could be necessary given poor results in meeting all of the construction costs and timing targets.

¹⁹ The size of the loan has been determined by finding the annual charge equivalent to 10 cents per thousand gallons, given that the total costs of the water plant are forecast at \$105 million and that the annual charge rate is 7 per cent. The annual charge rate has been determined as that uniform rate which, over the thirty-four year life of the loan, has the same present value as a series of uniform annual interest payments in the first ten years, and then repayment of principal and interest running to the thirty-fourth year.

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MEMORANDUM FOR: Mr. George D. Woods

November 4, 1968

FROM: D. F. Peterson and P. W. MacAvoy

SUBJECT: The Economics and Finance of a Research and
Development Plant Producing 40 Million
Gallons of Water Per Day (MGD)

From discussions with United States officials responsible for the development of large-scale desalting plants, and considering the current state of technology, the minimum size now needed for a first prototype large desalter, if meaningful research benefits from scaling up are to be obtained, is in the range of 30 - 50 MGD. Such a plant would be expected to produce research and development benefits that would allow the construction of more economical, later-stage plants. It could incorporate new vertical heat transfer tube (VTE) technology, which promises to result in additional cost reductions estimated at 20 per cent in later-generation plants. The unit cost of water in the 40 MGD prototype would be somewhat higher than in the 100 MGD model, owing to reduced economies of scale, but the construction costs and the amount of subsidy required would be much less.

Construction Costs of a 40 MGD Plant

In the following discussion of the 40 MGD plant, the approach is the same as that in the analysis of the 100 MGD plant. The cost estimates for the 40 MGD plant, however, have less validity owing to the fact that they have been scaled down from the Kaiser 1968 estimates for the 100 MGD plant (Table 1). They have not resulted from specific engineering and economic studies of a particular 40 MGD plant per se. They should, nevertheless, provide a bench mark on which some estimates of required financing can be made.

Table I. Estimated Construction Costs of 40 MGD Plant

Distillation Plant	\$28.24 million
Intake and Outfall, General Plant, Engineering Design, and Owner's Expense	13.22 million
Interest During Construction	6.15 million
Contingency During Construction	5.72 million

TOTAL CONSTRUCTION COSTS	\$53.35 million

For this plant, with total capital costs of \$54 million, the water plant only costs would be 43.6 cents per 1000 gallons, based on annual fixed costs of 10 per cent with an 85 per cent operating factor.

The Costs of Energy to Operate the Plant

The costs of energy, operations, and maintenance, using the results of the two Technion studies and the two Kaiser studies referred to in The Economics and Finance of an Israeli Desalting Plant Producing 100 Million Gallons Per Day, are shown in Table II. When added to the water-plant capital costs, the total costs of water range from 67¢ to 71¢ per 1000 gallons.

Table II. The Costs of Water

<u>Design Study</u>	<u>O and M and Energy Costs ¢/1000 G</u>	<u>Total Water Costs ¢/1000 G</u>
Technion Fossil	23.7	67.3
Technion Nuclear	25.9	69.5
Kaiser Fossil	25.0	68.6
Kaiser Nuclear	28.0	71.3

Financing the 40 MGD Plant

The Israelis should receive benefits from the water of 35¢ per 1000 gallons for the reasons outlined in the analysis of the 100 MGD plant. They should be required to bear the burden of costs totaling no more than these benefits. The Israelis could pay for the costs to provide energy to the desalting plant and for operation and maintenance; these are estimated to be in the neighborhood of 25¢ per 1000 gallons. Then the maximum principal on a World Bank or other agency loan 1/ equivalent to 10 cents per 1000 gallons is \$18 million. The required research grant would be \$54 million less \$18 million, or \$36 million. Since a period of about 6 years would be required to design and place the plant in operation, appropriations of funds could be spread over that period.

Design and Development Studies

New technology using VTE is now sufficiently advanced so that it should be introduced in any large-scale prototype plant. However, a full-scale VTE tube bundle has not yet been tested. Such tests will be required in order to provide necessary design data for the prototype and should be initiated immediately. These tests will cost \$4 - \$5 million.

Much more detailed conceptual studies and cost estimates for the 40 MGD plant will be needed. Such studies should include:

- (1) The best arrangement of a 40 MGD desalting plant in relation to feasible increments of power installation. For example, a dual-purpose plant with a single heat source (fossil or nuclear) feeding a back pressure turbine, of perhaps 100 MWe, and 40 MGD desalting, together with a condensing turbine, of perhaps 200 MWe. Site arrangement could be made to permit expansion of this installation, so that ultimately there would be additional water and power production hooked up flexibly so that part of the power facilities could be operated independent of water production.

- (2) A 40 MGD combination vapor compression VTE single-purpose desalting plant.

For predicting product costs in dual-purpose plants for purposes of economic evaluation, allocation methods which credit electricity profits to water production should not be used.

1/ A 6.5 per cent loan with a repayment grace period of 10 years then repaid over 24 years could be recovered at 7 per cent (interest plus sinking fund) over the 30-year life of the plant. This comes to $(0.10) (40 \times 10^3) (365) (.85) / .07$ or \$17.6 million (say \$18 million).

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EXDIS
DEPARTMENT OF STATE
Washington, D.C. 20520

November 29, 1968

MEMORANDUM FOR MR. WALT W. ROSTOW
THE WHITE HOUSE

Subject: Summary of State, Interior and Atomic Energy Commission Views on George D. Woods' Proposal on an Israeli Desalting Plant

Your memorandum of November 8, 1968 requested the Secretary of State to summarize for the President the positions of the Departments of State and Interior and the AEC on Mr. George Woods' proposal to construct a 40 million-gallon-per-day (MGD) desalting plant in Israel. Below is a brief summary of the positions of Interior, AEC and the State Department. In addition a complete statement of the State Department's position is enclosed together with your memorandum of November 8 and letters from the Secretary of the Interior, the AEC and the Agency for International Development.

Interior Position:

In brief, Secretary Udall believes that the proposal is feasible and highly appropriate for United States support. However, he feels it advisable to determine Israeli reaction to Mr. Woods' recommendations before proceeding further. He believes that the President should include the proposal in his FY 1970 legislative program and request the necessary authorization.

The Secretary suggests that the plan should be presented to the Congress as Phase I of a larger project with any additional phases to be funded entirely by Israel. Interior is uncertain about the receptivity

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of the House Interior Committee, which has criticized foreign activities of the Office of Saline Water, but feels that the Senate Interior Committee would look favorably upon such an initiative. In spite of some misgivings about the House Committee, they nevertheless believe that the proposal can be presented to Congress in terms of its value to the United States. The requests for appropriations can be spread out over a period of several years. Interior estimates that \$5 million would be required to construct a test module for the proposed advanced desalting system using Vertical Tube Evaporators (VTE) and do the necessary planning for the full plant.

In the event the United States is unable to provide the full subsidy, Interior suggests the possibility of asking Israel to pay for some of the equipment, materials, and services to be purchased in the United States in Israeli pounds. This money would be invested in water-resources research in Israel which is important to the United States from the standpoint of technological advancements and to the Israelis in terms of water supply.

AEC Position:

The AEC does not consider the Woods proposal fully responsive to either United States or Israeli needs and objectives. They believe further study should be made of alternative means of financing the larger plant and question Mr. Woods' conclusion that financing for that project in the amount and on the terms required is not available.

The AEC also believes that there should be further study of the advantages to the United States in using a nuclear-energy heat source of United States origin.

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They argue that, if Israel decided to use nuclear fuel and purchased a reactor of non-United States origin, there would be a danger that the reactor would not have adequate safeguards. Further, the AEC contends that the United States program for large-scale desalting has from the outset been explicitly directed towards the use of nuclear energy to promote peaceful uses of atomic energy under effective safeguards.

The AEC believes that broad discussions, in which the Woods proposal could be included, should be held with the Israelis. They suggest that the Department of State, the Department of the Interior, and the AEC fully explore a mutually acceptable position before communicating with the Israeli Government.

The AEC believes that the target of the 100 MGD plant should not be abandoned at this time, and suggests that the construction of this initial increment of 40 MGD could be accomplished without any financial commitment on the part of the United States for the remainder of the capacity.

The Commission feels that there would be extensive Congressional support for an appropriate nuclear-fueled plant but that the Woods route would seriously jeopardize that support. They point out that authorization for the Office of Saline Water's support would require action by the Senate and the House Interior Committees where opposition to foreign activities of Interior has frequently been expressed. The Commission feels that a broader-based nuclear plant could well receive the support of the Senate Foreign Relations and the House Foreign Affairs Committees as well as the Joint Committee on Atomic Energy.

Department of State/AID Position:

The Department of State and AID agree that Mr. Woods' proposal constitutes a feasible and appropriate

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next step. Both State and AID take the position that Israeli contribution to the research and development costs, in addition to paying for the economic value of the water, is warranted and desirable; however, this is recognized as a point which can be negotiated within the general concept of the Woods proposal. State's position is that the choice of either fossil or nuclear fuel sources in each case should be decided on its own merits. From the United States standpoint, these criteria would normally be economic. State feels that use of the desalting plant as a means to influence nuclear decisions by Israel is unrealistic. State believes that, since the 1967 war, the Government of Israel considers the nuclear decision so fundamental to the security of Israel that it will decide this question independent of considerations represented by a desalting plant. If the United States were to assist in the construction of a nuclear-fueled plant, it would of course, insist on International Atomic Energy Agency safeguards for that plant in accordance with regular practice. However, State believes that it is impossible to bargain with Israel today, for signature of the Non-Proliferation Treaty or for safeguards over Dimona or other non-United States nuclear facilities, in exchange for a desalting plant - even one of large size.

Both State and AID feel that the reaction of the Israeli Government to the general concept proposed by Mr. Woods should be explored, at the appropriate level, by Mr. Woods, unless the decision to proceed is negative.

State recommends that the President include authorization for the Israeli plant in his legislative program along the lines suggested by Mr. Woods, i. e., as part of the Department of the Interior budget. This joint research proposal was initiated by President Johnson several years ago. There appears to be a realistic opportunity to bring the matter to some positive con-

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clusion at this time. It is appropriate that this be done. AID doubts that a decision to include the program in FY 1970 legislation can be made at this time. While favorable to the Woods proposal, AID is concerned that a recommendation for a grant might have an adverse effect on the regular aid appropriation, although this concern would be reduced by an Israeli contribution to the Research and Development costs. While some major difficulties are apt to arise, chances for legislative success might well be greater now than later.

SKR

Benjamin H. Read
Executive Secretary

Enclosures:

1. Department of State Position
2. Memorandum to the Secretary of State from You, dated November 8, 1968
3. Department of the Interior Position
4. Atomic Energy Commission Position
5. Agency for International Development Position

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Enclosure 1

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DEPARTMENT OF STATE

Washington, D.C. 20520

Views of the Department of State on the
Woods Proposal on an Israeli Desalting Plant

Our comments are keyed to the numbered questions in your memorandum of November 8, 1968:

1. We accept Mr. Woods' conclusions, and agree that his proposal is a feasible and appropriate next step. We are, moreover, pleased that a concrete proposal for action has come from the lengthy process of consideration. The 40 million-gallon-per-day (MGD) plant proposed by Mr. Woods - fifteen times larger than any now built or under construction - is a more logical and attainable next step than the original, more grandiose proposal. At the same time, we think it is well to keep in mind that the Israeli Government may be disappointed in the conclusions reached, however compelling the reasons may be for deferring the original proposal. Nevertheless, we believe the Woods proposal represents a sizable benefit to the Israelis, and we think they may well recognize that fact. A water shortage, at some time in the future, impends; though we are inclined to believe that the crisis may be further away than some Israelis believe. Moreover, it is interesting that the Israeli Government has not yet been willing to make the difficult decisions on allocation of available water resources. We should at the same time recognize that significant changes in present water allocations could pose some domestic political problems to any Israeli Government.

We share Mr. Woods' belief that the larger 100 MGD plant cannot be financed under existing conditions, and

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Downgraded at 12-year intervals;
not automatically declassified.

DECLASSIFIED
E.O. 12958, Sec. 3.6
NLJ 02-202
By ML, NARA, Date 6-19-03

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we do not believe further study would affect the conclusion. Only about one-half of the estimated subsidy for the larger plant could be justified as a technological grant; the remainder would have to be in the form of outright economic assistance. The Woods proposal stipulates that Israel will provide the steam; this can be done less expensively in a dual-purpose plant, so we would expect Israel to take that course.

The proposed 40 MGD plant should produce water, under the contemplated financing scheme, at a subsidized cost approaching its worth to the Israeli economy. With regard to financing, however, it would be appropriate and desirable for the Government of Israel to provide part of the subsidy for technology required for the plant. As Israel becomes progressively wealthier, we would hope to maintain close United States-Israel cooperation, while making progress toward a more equal financial relationship. This is a point that could be negotiated with Israel within the general concept set forth by Mr. Woods. The Agency for International Development agrees on the desirability of Israel's sharing in the Research and Development subsidy, and that Agency's views are incorporated in a separate paper (enclosed).

The fundamental benefit to be derived by the United States under the Woods proposal is that the desalting plant's construction would demonstrate the basic technology required for future plants of up to a billion gallons per day that could be built anywhere in the world. If the United States can attain and hold a position of commanding leadership in the development and construction of low-cost, large-scale desalting plants, this would produce significant dividends in terms of our broad national interests. Among these would be the enhancement of our scientific prestige and technological leadership, and the not inconsiderable commercial and balance-of-payments advantages accruing from the sale of desalting equipment.

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For Israel, despite the reduction in plant size from the original proposal, the plant would be a major step towards a solution of that country's very difficult water problem. As AID points out Israel would also receive Research and Development benefits of some considerable value. It is reasonable to assume that Israel will construct additional desalting plants at later dates; these may well be of greater magnitudes and may or may not employ nuclear energy as a heat source. We recognize that a 40 MGD plant will not be sufficient to meet water needs now estimated by the Israelis by the time it is completed. This plant could provide a first major step in a larger complex. The proposed desalting plant should also have regional significance in proving out the use of large-scale desalting technology in an area of the world where it is most likely to be needed.

Except for the desirability of introducing non-proliferation safeguards and encouraging a pro-United States orientation in the nuclear programs of other countries, we have no general preference for any particular source of energy for a desalting plant. Recognizing that large nuclear reactors could provide lowest cost steam for large desalters, we nevertheless feel that each case can be decided on its merits considering the most economic basis as well as the corollary nuclear policy factors which may be present in each specific proposal. Mr. Woods' recommendations do not preclude a nuclear option. We are confident that United States reactors will continue to be commercially competitive, although we recognize that many countries (possibly including Israel) might be willing to bear the additional costs of non-United States reactors for the sake of independence from the United States as a monopolistic source of enriched uranium. With regard to the possibility that linking the desalting plant to a United States-built reactor will enable us to obtain safeguards over the plant in furtherance of our non-proliferation objectives, we have the following observations:

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In the past, the United States Government has considered that it might make acceptance by Israel of safeguards over all Israeli nuclear facilities a condition for United States Government financing for a large nuclear desalting plant. The political environment for such an arrangement has, however, been transformed by the Nuclear Non-Proliferation Treaty and the 1967 Arab-Israeli War. We believe that since the 1967 war, the Government of Israel considers the nuclear decision so fundamental to the security of Israel that it will decide this question independent of considerations represented by a desalting plant. If we were to assist in the construction of a nuclear-fueled plant, we would of course insist on International Atomic Energy Agency safeguards for that plant, in accordance with our regular practice. However, we believe that it is impossible to bargain with Israel today for signature of the Non-Proliferation Treaty or for safeguard over Dimona or other non-United States nuclear facilities in exchange for a desalting plant - even one of large size. In our opinion, the Government of Israel would not be ready to believe that the United States Government would stick to that condition; and that if, in fact, the United States Government did adhere to such a condition, the Government of Israel would likely break off the negotiations in a spirit of angry recrimination.

2. If Mr. Woods' recommendations are accepted, he is the logical candidate to approach the Israeli Government to ascertain its interest in the general concept proposed by him; the Department believes this should be done as soon as possible. We believe he should make clear to the Israelis that the specific amounts which the United States may be prepared to grant for technological advancement are yet to be determined and will be contingent upon Congressional approval of United States participation in the project. Under the Woods

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proposal, the United States would furnish the entire Research and Development grant of from \$36 to \$40 million, while the Israelis would borrow \$18 million from an international lending agency at normal rates of interest. But, if the subsidy portion is to be shared - at least in part - between the United States and Israel, which would be desirable, then the exact "split" would necessarily have to become the subject of detailed negotiations. Not only would the Congress be more receptive to voting funds for a proposal in which Israel bore a portion of the subsidy, but there is no reason to believe that Israel would be unwilling to consider such an arrangement. We understand there is some doubt that the Interior Department could obtain the full \$36 - \$40 million; and, to the extent that this is true, unless the plant cost can be reduced - a definite possibility - it will be not only desirable, but essential for Israel to participate financially in the subsidy if the project is to proceed.

The United States will, in all likelihood, have to carry the major burden of the subsidy: a straight 50-50 split would probably be very difficult to negotiate, in our judgment, though we might well start with this as our first "offer." We think that something in the neighborhood of a 75-25 split would be an acceptable basis for a final sharing of the costs. This would imply an OSW contribution of from \$27 - \$30 million and an Israeli grant of from \$9 - \$10 million. If Israel should decide to utilize nuclear heat sources for either the desalting operation, for power generation, or for both, the United States would be willing to examine, in accordance with our normal practices, the possibility of helping Israel to find financing such as from the Export-Import Bank or the International Bank for Reconstruction and Development for the construction and fueling of a suitable nuclear plant, making the usual long-term assurances of fuel supply.

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- 6 -

We recognize the AEC's interest in the Israeli desalting plant and believe broad discussions should continue on this and other proposals between that Agency, State and Interior; we propose that these discussions be accelerated in order to reach an understanding among the agencies, but we do not believe exploration of Israeli interest in the Woods concept should be delayed.

3. We think that the time has expired for further exhaustive discussions on the Israeli desalting plant without some indication of the resources the United States Government may be willing to commit. We favor including a request for funds in the Department of the Interior budget for this project in the FY 1970 budget, assuming (a) the President accepts Mr. Woods' recommendations, and (b) the Government of Israel expresses interest in them. We believe Congress will not be hostile to the proposal, and the fact that the entire sum does not need to be appropriated all at once, but can be spread over a period of years, may make it easier to obtain funding. For FY 1970 itself the only funds required will be those to pay for detailed engineering design and economic studies on the proposed 40 MGD plant. We recognize that advance testing of the VTE module is important so that this can be incorporated in the design, but this technology would have general future application, and the cost of the tests should not be charged to the Israeli project although authorization for them could be part of the legislative request.

We should seek Congressional approval in principle for the project, explaining that the precise amount that will be needed cannot be determined with exactitude until further studies on the 40 MGD plant have been made and an agreement on the subsidy "split" with Israel negotiated.

We feel that this program would have the support of the Congress. Although we have little basis for an

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evaluation of Congressional reaction, we think the program could be sold on its own merits. The program was initiated by President Johnson several years ago, and there now appears to be a realistic opportunity to bring the matter to some conclusion at this time. While major difficulties are apt to arise, chances for legislative success in FY 1970 may well be greater than at a later date.

We would hope to gain the support of the Senate Foreign Relations Committee, the House Foreign Affairs Committee, and the Joint Committee on Atomic Energy, considering the importance of the proposed project to the future of large-desalting-plant technology, including use of nuclear heat sources. The Interior Department has pointed out certain problems with its House Committee, with suggested means for overcoming them.

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MEMORANDUM

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Enclosure 2

THE WHITE HOUSE
WASHINGTON

15287

~~CONFIDENTIAL/EXDIS~~

Friday, November 8, 1968

MEMORANDUM FOR THE SECRETARY OF STATE

SUBJECT: Proposal on an Israeli Desalting Plant

Attached is the recommendation of Mr. George Woods for a next step in the joint US-Israeli study of a possible desalting plant to be built in Israel.

I would appreciate it if you could draw together for the President the positions of the Departments of State and Interior and the AEC on this proposal. At this point, I believe it is less important to give the President a unified recommendation--though that would be desirable--than it is to spell out for him the pros and cons.

Three specific questions I feel we should address are:

1. Do we agree that Mr. Woods' proposal is a feasible and appropriate next step in this US-Israeli program and in the general context of our progress in desalting?

2. Should Mr. Woods try to ascertain Israeli interest in this proposal as quickly as possible and preferably before Prime Minister Eshkol's visit?

3. Should the President include this in the legislative program and budget for FY 1970? [In answering this, I hope you can give the President a precise estimate of Congressional receptivity.]

With the Eshkol visit upon us, it would be helpful if we could have your response by November 15.

W W Rostow
W. W. Rostow

cc: Secretary of the Interior
Chairman, AEC
Administrator, AID
Director, Bureau of the Budget
Dr. Donald Hornig

DECLASSIFIED
E.O. 12958, Sec. 3.5
NSC Memo, 1/30/95, State Dept. Guidelines
By g, NARA, Date 2-24-98

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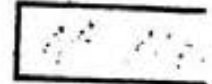


UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

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Enclosure 3

ACTION
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~~CONFIDENTIAL~~ MEMORANDUM

To: The Secretary of State
From: The Secretary of the Interior
Subject: Proposal for Desalting in Israel

NOV 15 1968

The Walt Rostow memorandum, dated November 8, 1968, asks that I comment to you on the proposal by Mr. George Woods for an Israeli desalting plant. These comments are made on the basis of inputs which I have received from the Assistant Secretary for Water and Power Development and the Assistant Secretary for Water Quality and Research.

I now wish to respond to the three specific questions proposed by Mr. Rostow.

Feasibility and Appropriateness

We do agree to the feasibility of the Woods proposal. There are many different ways of constructing a desalting plant of 40 million gallons per day. As stated by Mr. Woods, the primary emphasis is to be the development of desalting technology. If United States participation is to reflect this primary interest, with a view to building large-scale desalting plants in the future in Israel, in the United States and elsewhere, then a dual-purpose system using a back pressure turbine, coupled with a vertical tube evaporator, would be of greater interest to us than a conventional desalting plant. While it is inappropriate for us to dictate the energy source to the Israelis, we should recognize that nuclear sources for future large systems would probably be employed.

We believe that it is highly appropriate for the United States to support the Woods proposal and cite the following reasons:

- 1) To develop advanced desalting technology both from the point of view of design and from the point of view of hardware construction.
- 2) To demonstrate desalting practices and to gain operating experience with a large plant. It is only through actual operation that one can establish the economics of water costs, study the effects of different modes of operation, investigate pretreatment methods, learn about the operating and maintenance problems, all of which determine the price of the water.

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15/ Stewart L. Udell
Sec. of Interior

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Authority: Interior Guidelines
By: [Signature] NARA, Date: 2-24-99

3) As a necessary intermediate step for eventual larger projects in all parts of the world, and specifically in the United States. We can expect Israel to undertake the later construction of additional desalting units since they will have fully exploited their conventional water supplies. Whether or not we participate in subsequent phases, it will be helpful to set up this project in terms of phases, with Phase 1 being the single unit of approximately 40 million gallons per day which Mr. Woods proposes.

4) To make possible the establishment of a rational system of water use for agriculture. Because Israel is unique in having a fully integrated water system serving the bulk of the nation's irrigated agriculture and other uses, it provides in effect a "water management laboratory." The impact of decisions involving such matters as water prices and quantities, water allocation to different uses, value and kind of crops and areas of development can be related to the cost and quantity of desalted water, and, indirectly, to other water supplies.

To summarize, then, we believe that the proposal by Mr. Woods is both feasible and appropriate. All of the water resources interests of the Department of the Interior are strongly concerned here. Beyond this, the interests of the United States government are involved in providing technology for low-cost water for world-wide use.

Israeli Reactions

It would be advisable to determine Israeli reaction to the recommendations before proceeding further. Our concern arises because the proposal introduces factors not previously discussed (40 mgd vs. 100 mgd, VTE vs. MSF) and is predicated upon a value of water of 35¢ per 1000 gallons.

If Israel were to lose money on every gallon of water produced, then they might wish to make the plant smaller, or perhaps develop a different financing scheme. On the other hand, the Israelis might be willing to bear some financial deficit on this water for several reasons: 1) For technical prestige; 2) For developing engineering "know-how" in desalting design, construction and operation which could be exported; 3) To set the basis for future larger plants which they will need and which would be more economical; and 4) As a stimulus towards developing a rational system of agriculture with properly assigned water costs.

FY 1970 Budget and Congressional Reaction

Based on all the foregoing, we believe that the President should include this proposal in his legislative program and ask for the necessary authorization. The budget for FY 1970 would have to carry only a small fraction of the total cost. We estimate that \$5 million would be sufficient to construct a module for the proposed advanced desalting system and to do the necessary studies and planning for the full desalting plant to be built in Israel.

With regard to Congressional receptivity, we can offer the following comments. In August, 1967, the U.S. Senate accepted the so-called "Baker Resolution" (S.Res.155), urging studies and projects for the Middle East in nuclear desalting. We believe that the Senate Interior Committee would look favorably on such an initiative which can be considered a desirable first step towards a Middle East nuclear energy center. We are less sure about the reaction of the House, since we have experienced criticism with respect for foreign activities of the Office of Saline Water. A major critic has been Congressman John Saylor from Pennsylvania, who is the ranking minority member of the House Interior Committee. Whether he would be receptive to this proposal, presumably endorsed by the next Administration, is not known. It would be advisable not to indicate any commitment to a nuclear energy source, but to leave the choice open.

In any case, we believe that our presentation to the Congress will be able to present the value of the proposal to United States interests.


In addition, I would make the following suggestions concerning funding:

1) Depending on the cost-allocation method employed, the cost of water may be lower than stated, and therefore a smaller United States contribution would be required. The proposal uses cost sharing determined by an "available energy" allocation. In this approach, both power and water share the economic benefits of a combined system. Since it is not our intention to subsidize the cost of power generation in Israel, but rather to support the demonstration and advancement of desalting technology, it seems more appropriate to employ an incremental funding allocation in which the costs assigned to power generation are equal to the cost of generating a like block of power in a power-only plant. In this case, all of the advantages of the combined system are assigned to the cost of water production and the United States participation would be limited to assisting in the financing of the water plant only. With this approach, it is then possible to place our participation clearly on the basis of obtaining advanced technology which will benefit the United States. This latter approach is the basis for our authorization to participate in the Bolsa Island project. Congress was particularly interested that such a cost allocation basis be employed in order that funds justified for the development of desalting technology would not be subsidizing power production.

2) Next, I believe that the project should be presented to the Congress as Phase 1 of a larger project with the additional phases to be funded entirely by Israel. If this approach is agreed to by the Israeli government, then of course our contribution, although unchanged in dollars, will be a smaller fraction of the total project. Even if this approach were not to be adopted, we should still charge an appropriate portion of the heat source to the total capital costs of the desalting project, thus decreasing the percentage of our contribution.

3) If there is an objection to an outright grant as large as indicated by Mr. Woods, exceeding the usual less-than-50% cost-sharing formula, then there is still an additional method of financing that might be considered as supplementary to a grant and loan: Israel pay for some of the equipment, materials and services which it is purchasing from the United States, not in dollars, but in local currency, and that this amount be set aside to be spent on water resources research in Israel which is of importance to the United States. This scheme is analogous to the PL 480 scheme but would not draw on the PL 480 funds which have been developed by surplus agricultural commodities. Such a plan would be of benefit to the United States since it would give us a direct return in terms of high-quality research in the field of water resources.

The authorizing legislation might include reference to this kind of financing, as well as other possibilities that may develop in further discussion with Israel.



Secretary of the Interior



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

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Enclosure 4

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DECLASSIFIED
E.O. 12958, Sec. 3.6
NLJ 02-203
By isa NARA, Date 6-20-03

Honorable Dean Rusk
Secretary of State

Dear Dean:

I am writing in regard to the request in Walt Rostow's memorandum of November 8 that you draw together the positions of the interested agencies on the recommendations of Mr. George Woods, dated November 12, on a proposed desalting plant in Israel. While we have recently commented informally on previous drafts of the report, we welcome this opportunity to express now our formal position on the conclusions and recommendations of Mr. Woods' study.

Our views are expressed in the answers to the three specific questions posed in Mr. Rostow's memorandum, as well as in the more detailed comments which follow:

1. "Do we agree that Mr. Woods' proposal is a feasible and appropriate next step in the US-Israeli program and in the general context of our progress in desalting?"

As elaborated in more detail later in this letter, while we do not question the technical feasibility of constructing a 40 million gallon per day desalting plant in Israel, we do not agree that the proposed course of action is appropriate or realistic. Before agreeing to such a reduction in the scope of the proposed Israeli project, we believe that further information and study is required on:

- (a) Alternative means of financing the larger dual-purpose nuclear plant. In this regard, the report and its attachments do not explain the basis for its key conclusion that "it is not possible at this time to obtain financing in the amount and on the terms which would be necessary" for the dual-purpose proposal. In the absence of the basis for this conclusion on which much of the argument for a project of vastly reduced scope rests, it is difficult to evaluate its validity.
- (b) The advantages, in terms of U.S. policy, of the use of a nuclear energy source of the U.S. enriched uranium type with particular attention to the foreign policy aspects

GROUP 3
Excluded from automatic
downgrading and
declassification

This material contains information affecting the
national defense of the United States within the
meaning of the Espionage Laws, Title 18, U.S.C.,
Section 793 and 794, the transmission or revelation
of which in any manner to an unauthorized person
is prohibited by law.

of the possible recourse by Israel to other types of unsafeguarded nuclear reactors, and the opportunities open to us to influence favorably Israeli policy toward the Non-Proliferation Treaty or the acceptance of international safeguards. There are indications that Israel might decide to construct a natural uranium reactor as a step toward obtaining an unsafeguarded capability for the production of plutonium. We do not believe that this would be in our interests and could cause serious proliferation problems.

2. "Should Mr. Woods try to ascertain Israeli interest in this proposal as quickly as possible and preferably before Prime Minister Eshkol's visit?"

We believe it would be preferable for the Israeli Government to be advised of our interest in having broad discussions on the proposed joint program, in which Mr. Woods' concepts could be included, during or after Prime Minister Eshkol's visit rather than attempting on such short notice to obtain a prior expression of interest in the proposal on the part of Israel. We understand that Mr. Eshkol's visit has been deferred. This should enable the Department of State, the Department of Interior, and the AEC to more fully explore a mutually acceptable position before communicating with the Israeli Government.

3. "Should the President include this in the legislative program and budget for FY 1970?" /In answering this, I hope you can give the President a precise estimate of Congressional receptivity./

We believe that there would be extensive Congressional support for U.S. assistance to an appropriate nuclear desalting plant project for Israel. However, we feel that there are elements in the present proposal which would seriously jeopardize this support. The recommendation that the administration "obtain (1) U.S. legislative authorization for OSW support (of not more than \$40 million) . . ." would require action by the Interior Committee of the Senate and the House, where opposition has frequently been expressed to foreign activities on the part of the Interior Department.

Congressional authorization of a broader dual-purpose nuclear desalting plant, on the other hand, could well involve the Senate Foreign Relations and the House Foreign Affairs Committees, as well as the Joint Committee on Atomic Energy. Under these conditions, such long-term supporters of nuclear desalting as Senators Anderson, Gore, and Jackson, and Congressman Hollifield, would exercise a major voice in the Congressional decision.

Senator Baker, who sponsored the Baker Resolution on desalting for the Middle East, although not presently serving on these committees, could also be expected to have an affirmative attitude toward a nuclear desalting approach. Conversely, any proposal for a single purpose or fossil-fired desalting plant could encounter stiff opposition from this influential Congressional group.

As indicated in the above responses, our disagreements with the conclusions and recommendations of the report relate particularly to whether the desalting plant should make use of a nuclear or conventional energy source, with the size suggested for the proposed plant, and with the method proposed for securing Congressional appropriations. Also, we particularly note that the report presents no basis for its key conclusion that it is not possible that appropriate financing could be obtained at this time for the dual-purpose proposal.

The considerations relating to energy source and plant size are developed in more detail below.

1. Nuclear vs. Conventional Power

Perhaps the most surprising aspect of the report is its failure to make any distinction, in terms of U.S. interests, between a nuclear and conventionally fueled desalting project. The U.S. program for the development of large-scale desalting technology has, from the outset, been explicitly directed toward nuclear desalting plants. This approach has been a part of the joint US-Israeli project from its start in 1964. This was reaffirmed with specific reference to the Middle East in President Johnson's major policy statement of June 19, 1967, in which he stated, "We here will do our share, and do more, to see that the peaceful promise of nuclear energy is applied to the critical problem of desalting water and helping to make the deserts bloom."

This policy has been based on the long-standing U.S. program of encouraging the peaceful uses of nuclear energy in friendly countries under effective safeguards, as well as on the recognition that, in general, the economics of large-scale desalting definitely favor the use of nuclear energy in dual-purpose plants.

We recognize that, under Mr. Woods' proposal, Israel might, on its own, elect to build a nuclear power source for the desalting plant, and we agree that the final decision should be an Israeli

one. As noted above, however, if Israel does not decide to provide energy for the project with an enriched uranium reactor of U.S. type, there are indications that it might decide to build a natural uranium reactor as a step toward obtaining an unsafeguarded capability for the production of plutonium, which we do not believe would be in our interests and could cause serious proliferation problems.

The likelihood that Israel will choose a nuclear plant of U.S. design will be greatly reduced if we fail to indicate our strong preference for nuclear power and our willingness to cooperate, as we normally do in such cases, through an assured long-term source of fuel and Export-Import Bank financing for the power plant on conventional terms. Israel would be much more likely to choose a U.S. nuclear power source if it understood that United States' support for the project as a whole was based on an assumption that the energy source would be of this type. Toward this end, as mentioned above, we believe that it would be reasonable, in addition to providing enriched fuel under safeguards on our conventional terms, to extend Export-Import Bank financing for this project as we do for nuclear power projects in other countries with good credit experience. If Israel selects the dual-purpose approach, this would permit the AEC to include some support for development work related to interface problems between the nuclear and conventional plant. The overall financial implications of these measures of U.S. support for a nuclear power source would not be substantial.

2. Plant Size

We recognize that the proposal that we proceed with a 40 million gallon per day plant may assist in getting the project off to an earlier start than might otherwise be possible. However, we see no advantage in the adoption of a conclusion that the larger plant proposal "should be abandoned or at least held in abeyance."

As a matter of presentation, we believe that if the Israeli project were to be viewed as, ultimately, a 100 million gallon per day facility, of which 40 million gallons per day would be constructed initially, it would significantly improve the U.S. posture around the world as it would not result in the appearance that we were falling far below the long indicated target figure of 100 million gallons per day for the Israeli project. Moreover, as the report recognizes, Israel's well-managed water resources will be fully committed by the late 1970's. In view of this, it

seems certain that a plant of 40 million gallons per day capacity would soon be enlarged to meet Israel's growing needs and to take advantage of the economies that would accompany expansion of an existing facility.

The report's conclusion that "implicit in this dual-purpose proposal is the use of methods of cost allocation which tend to subsidize water costs from profits from electric-power operations" is inaccurate and suggests some misunderstanding of the economic advantages of dual-purpose plants. As Appendix B of the report correctly notes, the analysis should be based, as far as economics are concerned, on the least-cost means of providing the required amounts of electricity and water. In view of this and the economies of scale for both conventional and nuclear plants, the use of a dual-purpose plant, whether nuclear or conventional, is indicated over a wide range of water and power requirements. The means chosen to allocate costs and assign prices to the respective products is not normally relevant to the selection of the least-cost means of production.

Finally, the construction of an initial increment of 40 million gallons per day, without abandoning the long-held target of 100 million gallons per day, could be accomplished without any financial commitments on the part of the United States for the remainder of the capacity.

We will be pleased to discuss our views with you or your staff.

Cordially,



Chairman

319

15 NOV 1968

MEMORANDUM

TO: M/WP, Mr. Dean F. Peterson

FROM: AA/NESA, Maurice J. Williams *Maurice J. Williams*

SUBJECT: Proposal on Israel Desalting Plant

DECLASSIFIED
 Authority *AID Guidelines*
 By *[Signature]* NARA, Date *2-24-98*

1. The Woods recommendations on Israel desalting have brought earlier proposals much closer to realities and clarified the purpose (experimental technology-development) of any U. S. subsidy to it. The broad approach appears to us to be conceptually sounder than any we have seen before, i. e., a power project financed on commercial terms by Israel, the direct subsidy of water by power eliminated, the issue of nuclear vs. fossil fuels settled on its economic merits, and the desalting project financed by IBRD rates except to the extent that a research and development element could be justified. This formula does provide an appropriate conceptual basis for considering U. S. participation in the project. However no evidence is presented in the back-up papers that a 40 MGD desalting plant is the appropriate next research and development step. This point needs to be clarified before any proposal moves ahead.

2. We also believe that an Israel contribution to research and development costs is warranted and highly desirable.

- Not all the research and development experience from a project carried out in Israel is likely to be 100% translatable from Israel to the U. S.
- The R & D feedback to Israel for additional desalting plants in the future contains a potential economic benefit. Israel finances R & D in desalting and has the financial means to support R & D related to this project.
- The increased cost could add additional encouragement to more economic use of water. While Israel's conservation techniques may be excellent, we are not persuaded that current practices in industry, agriculture, or in households reflect the true scarcity value of water. More realistic water charges could change the pattern of demand, and postpone further the time when large scale desalting facilities might be needed.

- If R & D costs were shared, e. g., 50 - 50, the benefit cost ratio to the United States would be increased making it easier to consider the proposal as a straight business proposition rather than foreign aid, thus reducing any side effects on the "aid" bill.
- Shared R & D costs would improve the case for carrying out the project in Israel rather than the U. S.

3. A major concern we have with the recommendation for a \$40 million grant for a 40 MGD Israeli desalting plant is the adverse effect such a request is likely to have on the regular aid appropriation. Though labelled as R & D for the Office of Saline Water, it is likely to be viewed in Congress, and particularly the Appropriations Committees, as just another aid spigot. To some extent, they would be correct. (The Authorizing Committees in both the Senate and House have considered variants of this proposal, i. e., the Baker Resolution and the Ryan Amendment.) From A. I. D. 's point of view, the desalting plant would have a low "foreign aid" priority though it is likely to have considerable Congressional support. Thus the R & D case could be justified and strengthened by an Israeli contribution to the R & D costs.

4. We believe Prime Minister Eshkol could be given current thinking on the project, without a commitment as to either the extent or timing of U. S. participation. He could be informed of the broad approach to the project, now under consideration, i. e.:

-- power, including the energy needed by the desalting process, strictly an Israeli concern,

-- an experimental desalting project in which Israel and the United States might share, perhaps on a 50 - 50 basis, the R & D costs, with the balance of any costs financed by Israel, possibly through the IBRD or on equivalent terms.

We assume he will need to think this approach over and consult other members of his government as to Israel's interest in participating in this kind of project.

5. We do not think it is possible now to decide whether the FY 1970 budget should include appropriate legislation.

AA/NESA;ADWhite:11-15-68

Clearance:

ENGR:KVernon (draft)

NESA/NE:JCEddison (draft)

NESA/ENGR:OFolsom (draft)

NESA/CDF:LRosenberg (subs)

Tuesday, December 17, 1968

MEMORANDUM FOR THE PRESIDENT

~~1. Copy~~
2. Pres file

SUBJECT: Cabinet Committee's Recommendations for 1969 Balance of Payments Program

At Tab A is Secretary Fowler's letter report, with covering memorandum, presenting the recommendations of your Cabinet Committee on Balance of Payments for the 1969 program. All the members of the Committee approve.

In effect, the Committee recommends the continuation of the 1968 program, with minor modifications. The main elements of the program are:

- Maintaining fiscal restraints.
- Continuing to press for better rules of the game for our trade through international negotiations.
- A strong export promotion program.
- Neutralizing wherever possible the foreign exchange burden of our military expenditures abroad.
- Continuing the mandatory restraints on direct investments abroad. (The new rules for 1969 were announced by Secretary Smith on November 15.)
- Continuing the Federal Reserve ceilings on bank credits abroad.
- Continuing the Interest Equalization Tax. (It expires next July 31 under present legislation.)
- Regular and adequate financing to support a strong program to promote foreign travel to the United States.

The main point that Secretary Fowler's report makes is that it would be dangerous to lift the mandatory controls on direct investments or the restrictions on bank lending abroad until we have made more progress on improving our trade surplus and bringing our over-all accounts into equilibrium.

At Tab B is a suggested reply to Secretary Fowler's letter. He recommends that his letter and your reply be published as an appropriate means of announcing the continuation of our present program into 1969. (He would like to publish them tomorrow - December 18.) This will provide for an orderly transition and will give the new Administration time to formulate its own policies in this area.

I concur in Secretary Fowler's recommendation.

W. W. Rostow

If you agree, we will
need your signature on
the letter at Tab B _____

Disapprove _____

Call me _____

gk
ERF:JKN:mm



THE SECRETARY OF THE TREASURY
WASHINGTON

December 17, 1968

MEMORANDUM FOR THE PRESIDENT

Subject: Balance of Payments Program for 1969 and
Progress Report for 1968.

In November or December of each year, beginning in 1965, your Cabinet Committee on Balance of Payments has submitted and you have approved and released publicly a recommended program to guide and coordinate the many Federal and private sector activities relevant to our international balance of payments.

I am transmitting herewith the recommended Balance of Payments Program for 1969. It has been approved by the Cabinet Committee on Balance of Payments. I am also including a short suggested general letter of approval for your signature.

I believe your approval of this program and the release of the letter exchange would facilitate an effective transition and the orderly development of future policies in this important area.

This 1969 program basically calls for a continuation and further development of the Action Program which you announced last New Year's Day. We must continue the temporary restraints of that program while pressing forward on the possible longer term measures to achieve sustainable equilibrium in our international accounts.

The Treasury has also prepared a 1968 Progress Report analyzing in some detail the actions taken in the last eleven months to execute your New Year's Day Message. It makes a good accounting for the record.

After a release of the exchange of letters, the Treasury would plan to reprint the exchange along with your last New Year's Day Message and the Progress Report on 1968. The format

would be similar to the Treasury Bluebook of last January. This would put these three essential elements into a single package for the benefit of all the Departments and agencies of the new Administration who would be responsible and concerned with balance of payments activities.

I believe this, too, will facilitate an orderly transition and avoid any feeling in the government or public, domestic or foreign, of a lapse in this vital program.

Recommendation: That you approve the announcing of the proposed 1969 Balance of Payments Program through the publication of an exchange of letters along the lines of the attached.

Henry H. Fowler
Henry H. Fowler

Approve _____

Disapprove _____



THE SECRETARY OF THE TREASURY
WASHINGTON, D.C. 20220

DEC 17 1968

Dear Mr. President:

Near the end of each year beginning in 1965, your Cabinet Committee on Balance of Payments has submitted a recommended Program to guide and coordinate the many Federal activities relevant to our international balance of payments. This letter report will set forth the recommendations of the Cabinet Committee on Balance of Payments for the 1969 Program. Your approval of this Program should facilitate an effective transition and orderly development of future policies in this important area.

With my colleagues on the Cabinet Committee and the aid of your staff, we have coordinated the execution of the Action Program contained in your Balance of Payments Message to the nation last New Year's Day. A 1968 Progress Report will be separately submitted.

We have also considered together the nature and extent of the program needed for 1969 if the nation is to build on the progress made in 1968 and achieve a viable and durable equilibrium in our international balance of payments. It is submitted below.

The Cabinet Committee on Balance of Payments has worked with me in preparing the 1969 Program. The following participants join with me in these recommendations:

The Secretary of Defense
The Secretary of Commerce
The Secretary of Transportation
The Under Secretary of Agriculture
The Under Secretary of State for Political Affairs
The Administrator of the Agency for International
Development
The Special Representative for Trade Negotiations
The Director of the Bureau of the Budget
The Chairman of the Council of Economic Advisers
The Chairman of the Federal Reserve System.

A few preliminary comments are in order concerning the overall policy framework in which these recommendations are submitted.

Our determination to achieve equilibrium in our international accounts is as vital today as it was on January 1, 1968, the day you announced your Balance of Payments Action Program. The removal of our international payments deficit remains "a national and international responsibility of the highest priority".

The execution to date of the broad and comprehensive Action Program you announced on last New Year's Day has substantially improved our balance of payments situation. A huge deficit in 1967 has been whittled down to near equilibrium in the second and third quarters of this year on the liquidity basis of measure. There is a substantial surplus for the first three quarters on the official settlements basis.

We are pleased that the nation is making substantial progress toward achieving equilibrium in our international balance of payments. But we cannot be satisfied with the relative composition of its components. Our progress is spotty and some of it may be transitory. It is spotty because two big elements in our current account -- trade and tourism -- are far from satisfactory, and a third -- a reduction in net deficit in Government military expenditures in Southeast Asia -- must in large measure await the restoration of peace in the area.

There is reasonable prospect of continuing improvement next year. This assumes that there is no dismantling of the ongoing elements of your Action Program. It also assumes that the initiatives launched in that program to improve our trade surplus and reduce the net deficits in military expenditures abroad and private travel will be vigorously pursued. Until these elements of the program are effectively executed, we will not have the durable surplus or the assurance of a long-term equilibrium that will enable us to abandon some of the temporary and less desirable measures we have been forced to employ.

These temporary measures have served us well. They helped bring the necessary immediate improvement in our balance of payments and have given renewed confidence in the strength of the United States dollar. These temporary measures, appropriately modified, are needed for some additional period. As the longer-term measures, instituted last year and in some of the preceding years, yield increasingly larger benefits, the restraint achieved by the temporary measures may be phased out.

To complete our task, a continued and sustained effort will be needed. This is the quickest and surest route to the strong and viable payments position which will permit us to eliminate those aspects of our program that are not wholly compatible with the free flow of trade and capital movements.

These are the underlying principles which your Cabinet Committee on Balance of Payments believes should govern the program in 1969.

I. A Stable Economy and the Restoration of a Healthy United States Trade Surplus Should be the Primary Objective for 1969.

The keystone of a sound international financial position of the United States and of the dollar is a trade surplus. Without it, the United States cannot do what is natural and desirable for its role in the Free World -- to export capital, to provide its share of the common defense, to give foreign aid, and to have large numbers of its citizens traveling abroad.

Hence, the first order of business in your last New Year's Day Message was for Congress to enact an anti-inflation tax, which, coupled with expenditure restraint and appropriate monetary policy, could help stem the inflationary pressures which threatened our economic prosperity, stability and our trade surplus. You also urged labor and management restraints in wage-price decisions and instructed your principal officers in the economic area to work with leaders in business and labor to make effective a voluntary program of wage-price restraint. A similar instruction on preventing our exports from being reduced and our imports increased by crippling work stoppages was prescribed.

Unfortunately, delays in attending to this first order of business in 1968 contributed to a continued instability in the economy and a very substantial decline in our trade surplus. However, the progress that has been made in recent months has laid the foundation for a much better national performance in the area in 1969 and years ahead, if the nation carries through with the program now in progress.

The Revenue and Expenditure Control Act, finally enacted in late June, established our commitment to fiscal restraint.

The Congress and the President will have to decide in the months ahead on fiscal policy for the period beginning July 1, 1969. This policy will require decisions on expenditures and taxes necessary to provide that degree of fiscal restraint which is a fundamental element in an adequate follow-through in the ongoing process of disinflation, restoration of our competitive position and provision of a healthy trade surplus. This fiscal policy, coupled with appropriate monetary policy by the Federal Reserve Board, will make possible the avoidance of the excessive demand that has contributed to the decline in our trade surplus. It will also enhance our competitive position by arresting inflation and enabling the economy to move back toward reasonable price stability, given accompanying voluntary restraint in wage-price decisions.

The Cabinet Committee on Price Stability, after consultation with business and labor leaders, including the President's Labor-Management Advisory Committee, is submitting a report on the progress made and the plans for future cooperative efforts on the wage-price front.

In 1968 we witnessed the adverse effects on our international trade position of the work stoppage in copper and the potential work stoppages in steel and on the docks. These focused renewed attention on the need for both labor and management to recognize the implications of their actions and their positions on wage disputes and their relationship to the protection of our national interest in maintaining the strength of the dollar.

2. Initiatives Pursued in 1968 to Assure Fairness to United States Trade in World Markets Should Culminate in 1969 in Cooperative Action by the United States and Our Trading Partners.

In 1969 further reduction of non-tariff barriers and appropriate changes in the General Agreements on Tariff and Trade rules on border tax adjustments must be achieved. International trading rules and practices are established through multilateral consent and negotiated in the multilateral forum of the GATT. In early 1968 United States representatives inaugurated a determined effort to eliminate non-tariff barriers, review agricultural trade, achieve improvements in the trading rules and minimize the disadvantages to our trade which arise from differences in the application of national tax systems to exports and imports.

The GATT Committee on Industrial Products has developed a catalogue of non-tariff barriers to trade and is now turning to the removal of these restrictions. Similarly the Agriculture Committee of the GATT is conducting a general review of agricultural trade problems. In attempting to solve problems in these areas, we must be realistic in our objectives and timetable. On the other hand, we cannot be satisfied without real progress soon to eliminate the significant non-tariff barriers. We must bear in mind that the Trade Expansion Act of 1962 does not permit the United States to compensate with trade concessions the removal by others of illegal non-tariff barriers.

The GATT Working Party on Border Taxes must complete its task as early as possible next year. We believe there is a structural disadvantage to the United States, and to other predominantly direct-tax countries, which arises from the border tax adjustment system as presently permitted under the GATT rules. The lack of an overall limitation on border tax adjustments, the proliferation of the practice, and the unequal treatment prejudicial against one tax system as opposed to another are problems in the GATT rules which must be addressed.

The United States has also raised the issue of the provisions in the GATT rules which pertain to the process by which international payments imbalances are adjusted. Under the GATT, countries suffering temporary balance of payments difficulties may introduce short-term trade restricting practices such as quotas but the GATT is silent on the responsibilities of surplus countries.

We have seen, in the month of November, two countries employ other measures which also facilitate the adjustment of their balance of payments position. Through the manipulation of border tax adjustments, both France and Germany are endeavoring to influence their trade accounts in a manner conducive to better overall payments equilibrium. This course of action was chosen as an alternative to a change in parity -- an action which would have a permanent effect on trade. This experience should be examined to consider its lasting implications for the process by which a nation's international payments are brought into balance.

3. The Department of Commerce Should Intensify Efforts to Expand Commercial Exports Generally and in Conjunction with Foreign Assistance, and the Agency for International Development Should Continue Measures to Assure Additionality and to Minimize Substitution in Foreign Assistance.

The long-term trade promotion program which you outlined in your New Year's Day Message should be pursued vigorously. These efforts have been helpful to date, and they will have to be reinforced. The recent recommendations of the National Export Expansion Committee provide suggestions for reinforcements. These should be considered.

The efforts of AID and other concerned agencies to minimize the balance of payments cost of bilateral economic assistance have been successful in keeping these costs to a minimum. The principles by which this is done are established. The implementation of these principles has now been under way for some time; and the regular, vigilant administration of these methods is what is required and is what we are receiving.

Some of the most important by-products of economic assistance are the trading benefits arising from the development and growth of viable economies abroad. We trade and prosper together. Our tied bilateral economic assistance, which transfers real resources has the effect of facilitating the introduction of American goods and services to these foreign markets. In distant areas, purchases of capital goods, often bought to last for a lifetime, provide a continuing introduction of the product names of our factories to foreign buyers.

In 1969 we must concentrate on developing follow-up sales after these early "calling cards" have been delivered. Industry, assisted, if need be, by Government, must expand upon the export opportunity created by our economic assistance. This will require a sustained and positive program.

The Commerce Department has cooperated closely with AID in seeking ways to maximize United States commercial exports following upon the foreign assistance program. In the area of publicity, Commerce provides information on AID business opportunities through a variety of media such as International Commerce and Quarterly Summary of Future Construction Abroad.

In addition to information available through these publications, Commerce provides information on AID export opportunities and guidance on the procedures for selling under the AID programs directly to American businessmen through personal contacts. The Commerce Department also puts together annual United States trade and investment programs for approximately 60 countries of main commercial interest in the world. Specific informational, promotional, and policy activities to be carried out in support of the program objectives are delineated. For countries with AID Missions, the AID operations generally constitute an important factor in achieving progress toward the investment program objectives. Additionally, the Department of Commerce through its trade programs, commercial exhibits and trade missions actively assists the United States exporter.

4. Consistent with Our Security Commitments, the Nation in 1969 Should Continue to Minimize Its Net Military Deficit by Reducing These Expenditures Whenever Conditions Permit and by Neutralizing Them Through Cooperative Action by Our Allies.

We should stand by the principles which you enunciated in the January 1 program:

"We cannot forego our essential commitments abroad, on which America's security and survival depend.

"Nevertheless, we must take every step to reduce their impact on our balance of payments without endangering our security."

As we look at our overall balance of payments position and prospects, it remains a key concept that the foreign exchange drain from United States defense expenditures outside our borders for mutual security is an extraordinary item in the balance of payments. It should be met by special governmental action -- it does not result from normal economic developments; nor is it subject to normal economic management through fiscal, monetary and incomes policies.

We need to maintain existing programs and constantly seek new ways to reduce our defense expenditures abroad. The types of actions by the Defense Department to reduce net foreign exchange costs during the years 1961-1967, as described in "Maintaining the Strength of the United States Dollar in A Strong Free World Economy", Tab B, United States Treasury Department, January 1968, and in the Supplemental Progress Report for 1968, must be constantly pursued.

We welcome the extensive cooperation from countries in the North Atlantic Treaty Organization and in other parts of the world during 1968 to minimize our military foreign exchange costs through:

- purchase in the United States of their defense needs; and
- investments in long-term United States securities.

In 1969 we will want to continue cooperation and conclude new arrangements, with particular emphasis on NATO Europe. In the coming year, we will want to build on past experience in ways which:

- proceed from the NATO recognition of the principle that the solidarity of the Alliance can be strengthened by cooperation between members to alleviate burdens arising from balance of payments deficits resulting specifically from military expenditures for the collective defense;
- increase the emphasis on purchases in the United States to meet country needs for the improvements NATO has recently called for in country forces; and
- reduce reliance on investments in long-term United States securities as a means for dealing with our foreign exchange costs resulting from defense expenditures outside our borders, since these investments do not provide the basis for a long term solution.

In other parts of the world, we should give particular attention to the Far East. Military expenditures related to Vietnam and the prospective longer-term security situation in the region may be expected to continue a heavy drain on United States foreign exchange. We will be looking to countries in the region to continue and expand their cooperation with us to deal with this problem on a continuing basis. Active negotiations to this end should be a continuing responsibility of the Secretaries of State, Treasury, and Defense.

Of course, the principal opportunity to achieve actual reductions in our gross defense expenditures abroad, without damage to our long-term mutual security interests, is most likely to occur in connection with progress in the negotiations looking to a peaceful settlement of the conflict in Southeast Asia.

Even before our substantial involvement in military operations in Vietnam in 1965, United States military expenditures in the major Far Eastern countries were considerable. The direct foreign exchange costs of these expenditures averaged about \$700 million per year before 1965. They are currently running approximately \$1.5 billion higher.

This heavy direct loss of dollars to and through East Asia must be reduced when the fighting stops.

Therefore, a high priority must be given to the problem of neutralising, to the maximum possible extent, the balance of payments cost of our security forces in East Asia while the fighting continues, and reducing the gross cost when the fighting diminishes or ceases.

5. The Mandatory and Temporary Foreign Direct Investment Program, as Announced in Modified Form by the Secretary of Commerce on November 15, 1968, Should be Maintained.

The mandatory direct investment control program for 1968 has not interrupted the high, indeed, unprecedented, level of total American investment abroad. It has had the intended effect of reducing capital outflows from this country by increasing the use of funds borrowed overseas for direct investment by United States affiliated enterprises.

Our base for future earnings continues to increase and the present balance of payments costs are maintained within tolerable limits. The private sector has for the most part understood this. The best way to keep the program temporary is to press ahead vigorously on all features of the balance of payments front.

There is little disagreement that this program should be temporary and terminated as soon as possible. It is the view of your Cabinet Committee that it is not possible to terminate the program in 1969 without running a grave risk that our progress toward balance of payments equilibrium would be reversed and a heavy deficit become a likely prospect. As stated earlier in the principles governing the formulation of the 1969 program, until the nation has a durable surplus or the assurance of long-term equilibrium, it would be unwise to abandon some of the temporary and less desirable measures that it has been forced to employ.

This has a special relevance to the Foreign Direct Investment Program as the following observations underscore:

First, overseas investments by American business (excluding Canada, which is exempt from the direct investment program) are projected to increase again in 1969, with plant and equipment expenditures reaching close to \$8 billion -- up from an estimated \$7.5 billion this year, and up from \$4.6 billion in 1964, the last year before the introduction of the voluntary program.

Second, in order to hold the balance of payments impact of such investment in 1968 to the \$2.6 billion targeted by the President last January, it may be necessary for United States companies and their foreign affiliates to utilize between \$2 and \$2.5 billion of the proceeds of foreign borrowing in addition to foreign borrowing for day-to-day working capital requirements. To meet the new target for foreign direct investment of \$2.9 billion in 1969, we project it may be necessary for business to utilize another \$2 - \$2.5 billion in foreign borrowing next year.

Third, growing restraint upon capital flows from the United States since the start of the voluntary program in February 1965 has resulted in a substantial, and to some extent abnormal level of foreign debt by United States companies and their foreign affiliates, as compared to what it might otherwise have been without the foreign direct investment programs. We do not have any precise way to measure its size, but it could approach \$5 billion by the end of this year.

Fourth, during the past four years, in cooperation with the capital programs, many United States companies have decreased their overseas liquidity through the reduction of inter-company accounts and the repatriation of earnings, and, as a result, are more active, albeit reluctant, borrowers for working capital purposes.

All of this suggests that termination of capital controls in 1969 could result in a sharp increase in capital outflows and retained earnings -- it is difficult to estimate the precise amount for much will depend upon market

conditions and other factors, but there is a potential exposure of as much as \$3 - \$4 billion. The outlook for 1969 does not permit taking the risk of that much additional direct investment hampering progress in our balance of payments program.

Basically, the 1969 Foreign Direct Investment Program will follow closely the format of this year's program. However, some additional leeway is needed (a) to provide additional flexibility for companies with limited or no overseas investment experience; (b) to make the Regulations more responsive to those companies whose investment quotas are unrealistically low in relation to the return flow of earnings from their direct investments; (c) to assure that the program does not unnecessarily inhibit the growth of inter-company exports of American goods and services to foreign affiliates; and (d) to enable the Office of Foreign Direct Investments to be more responsive to special industry problems and some of the inequities in the Regulations which have become apparent during 1968.

We recognize that just to maintain their existing overseas operations on a sound basis, companies must have the capability to retain abroad a certain percentage of their foreign earnings. Furthermore, retention of a portion of foreign earnings will be necessary to insure an orderly retirement of the growing debt being contracted abroad. We therefore recommended that the target level of direct investment be increased to insure that every company has, in 1969, an investment quota of at least 20 percent of its 1968 earnings from foreign direct investment. This change was announced on November 15.

Some adjustment in the target was also necessary to assure that United States companies have additional quotas to expand exports of goods and services through their foreign affiliates.

Further adjustments of the target were needed to make the Program more responsive to hardships arising from the application of the Regulations to special industries such as the international construction and transportation industries, whose operations and accounting procedures do not dovetail with the Regulations; to provide relief for companies whose ability to meet the repatriation requirements

of the Regulations is restricted by law or lack of control; to encourage private investment of a developmental character in the less developed areas, and to provide companies with no or limited prior overseas investment experience with a somewhat higher level of permitted direct investment.

Finally, to enable companies to plan ahead and to insure that investment projects with important future balance of payments potential are not discouraged, the Office of Foreign Direct Investments evolved its incremental earnings formula, under which additional direct investment in future years is authorized on the basis of future incremental earnings.

6. The Federal Reserve Voluntary Foreign Credit Restraint Program Should be Maintained with Present Ceilings on Foreign Lending from the United States, but in the Coming Year Attention Should be Given to Possible Modifications to Encourage Further the Promotion and Financing of Exports by the Commercial Banking System.

The Federal Reserve program has required a great deal of United States financial institutions and they have responded well. Since 1964, United States commercial banks have not increased the volume of United States credits to foreign borrowers, even though the foreign banking business has grown substantially in all other respects. In their international operation, United States banks have had to meet the demands of clients for foreign loans within their voluntary ceilings and through the extensive use of resources in foreign branches.

The prospects for 1969 do not permit any basic change in the need for restraint on foreign lending of United States banks and other United States financial institutions. Accordingly, the existing voluntary ceilings for foreign lending by these institutions should be continued for 1969.

During the coming year, attention should be given to the effect of the program on increasing United States receipts as well as on reducing United States capital outflows. Since 1964, annual exports from the United States

have increased by about 32 percent. Financing to support the growth in exports has become available as banks have changed the composition of their portfolios of foreign credits in response to the voluntary program and to a lesser extent by the use of funds in foreign branches and by the expansion of the Export-Import Bank's direct lending. The Federal Reserve Board intends, in the light of developments in the United States and abroad, to review its Voluntary Foreign Credit Restraint program early in 1969 in order to determine whether additional flexibility for financing United States exports might usefully be provided in the program's guidelines.

7. The Interest Equalization Tax, which Expires July 31, 1969, Should be Extended with the Existing Authority to Vary the Rate from 1-1/2 Percent Down to Zero, Depending on Circumstances.

The size and efficiency of the American capital market necessitated the Interest Equalization Tax in 1963. This tax has served to facilitate greatly the expansion of the European capital market and to develop additional techniques for employing savings around the world in productive investments. Through preserving an exemption for lesser developed countries, the access they need for development assistance is assured. In 1967, Congress granted the President certain discretionary authority in order that the purpose of the legislation -- which is to limit but not prevent access to the capital market from developed countries -- is best served.

In 1969, this legislation will need to be extended. In order that we have available a method for phasing out this tax, the existing authority to vary the rate of the tax from zero to 1-1/2 percent per annum should be retained.

8. A Five-Year Program is Needed to Narrow the Travel Deficit Through Promotion of Foreign Travel in the United States by Both Public and Private Action.

As has been pointed out repeatedly to the public and to the appropriate Committees of Congress, the trend of the contribution of travel to and from the United States to our balance of payments deficit is such that the United States cannot continue to ignore the problem.

It was for this reason that in your New Year's Day Message you sought to reduce the travel deficit by calling for voluntary action and appropriate legislation. In 1967 this deficit exceeded \$2 billion. If the nation is to prevent the tourist deficit from continuing to rise and possibly exceed \$4 billion by 1975 (as United States disposable income and the portion of it spent on foreign travel increases, and the new airplanes with larger capacities and greater speeds bring lower fares), the nation must begin to implement now a comprehensive long-term program to increase rapidly the amount of foreign travel to this country.

The President's Commission, formed in 1967, has provided numerous suggestions worthy of attention, not only for immediate measures already taken in 1968, but for the longer term future.

Although final figures are not yet available, we must anticipate a continued large travel deficit in 1968. It might well have been larger but for the fact that many of the remedial measures recommended by your Commission were carried out by Government and voluntarily by the private sector.

The longer-term measures recommended by your Commission to promote travel to the United States will require regular and adequate financing. The simple fact is that the United States has a smaller annual budget for promoting tourism than that of almost any other industrial country.

One way to finance an appropriate and effective travel promotion program would be to eliminate the exemption of international flights from the long existing five percent tax on airline tickets and to dedicate a portion of the proceeds to a special fund to be used and expended for travel promotion during the fiscal years 1970-74. There are, of course, other ways. Early Congressional action is highly desirable.

We must not allow an increased tourist deficit to jeopardize progress in other areas of the balance of payments nor to necessitate the maintenance of temporary restrictive measures on capital flows, nor to handicap the United States in discharging its national security commitments outside the United States.

* * *

The Cabinet Committee on Balance of Payments believes that these policies will continue the very real gains already achieved under the Action Program you announced last New Year's Day, will maintain the strength of the dollar, and will contribute to a strong free world economy. In the year ahead, these policies will help to preserve these gains and their contribution to a strong free world economy.

Faithfully yours,

(Signed) Henry H. Fowler,

Henry H. Fowler

The President

The White House

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KUSTOW'S OFFICE

1968 DEC 17 PM 8 44

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December 18, 1968

Dear Mr. Secretary:

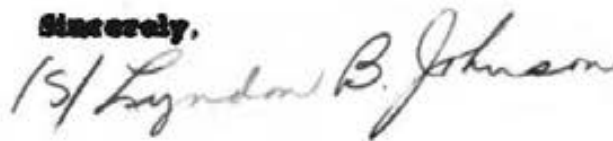
I have reviewed and approved the report of the Cabinet Committee on Balance of Payments setting forth recommendations for 1969.

Our balance of payments program consists of a series of ongoing policies in a number of related areas. It must at all times be coordinated and pulled together. We have made our recommendation for 1969 at this time to facilitate an effective transition to the new Administration and the orderly development of future policies in this important area.

We have made a great deal of progress in 1968 toward our goal of a healthy equilibrium in our balance of payments. More progress must be achieved to assure the continued strength of the United States dollar. The stability of the international monetary system, and the great amount of world trade which it supports, depend upon that strength.

I would like to thank you and the other members of the Cabinet Committee on Balance of Payments for your determined efforts to propose and to do whatever is necessary to keep the dollar strong.

Sincerely,



The Honorable
Henry H. Fowler
Secretary of the Treasury

LBJ:ERF:mmm
Treasury

~~SECRET/NODIS~~

Thursday, December 19, 1968, 6:00 P.M.

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Ambassador Bunker's Weekly Report

Pres file

The conclusion of Ambassador Bunker's current weekly report is worth pulling out. He says,

"I am convinced that the tide is running more strongly with us now than at any time in the past.

"I believe that 1968 will go into history as the year in which the strength and love of freedom of the South Vietnamese people was most severely tested and not found wanting.

"For all of us, it has been a long year of great sacrifice.

"I am convinced that if we continue patient and confident in our own strength, we will get next year the kind of peace we have sought through so many grim trails."

Bromley Smith

Attachment

BKS:amc

DECLASSIFIED
Authority per declassified attachments
By m/dch NARA, Date 1-27-98

~~SECRET/NODIS~~

33a
Thursday, December 19, 1968~~SECRET/NODIS~~

Mr. President:

Herewith a capsule of Ambassador Bunker's 74th message:

A. Paris Talks

- Vietnamese progress continues despite preoccupation with negotiation issues.
- Formation and dispatch of Paris delegation, pacification and military gains reflect GVN efforts to strengthen position for negotiations.
- GVN views initial procedural moves as having critical effect on Paris outcome, and fears over-eager concessions.
- Hanoi record from bombing pause issue to present indicates willingness to accept less than first demand indicates.
- Clifford statements of December 15 add to Vietnamese suspicions that US lacks understanding of nuances involved.
- Over-eagerness for accommodations and quick results in Paris may make viable solution more difficult and distant.

B. Expanding Government Authority

- Thieu and Huong continue Accelerated Pacification Effort (APE) inspection tours.
- Have visited all four Corps areas focussing on village elections, Chieu Hoi, Phoenix, administration and Self-Defense growth.
- APE results to date better than hoped; relatively secure population reaches 73.3% level.
- Gains in security and population control due to slackening enemy opposition resulting from relentless pressure of our operations.
- Enemy capability for new offensive dims though still a possibility.
- Thieu plans another accelerated APE effort after Tet and speedup in RF-PF increases.
- Chieu Hoi rate rising; helped by cash reward system.
- VC Infrastructure toll mounts with 11,066 mostly low-level cadres neutralized through October; 82,000 remain.
- Civil defense effort gains as Thieu personally pushes program.
- GVN considering resettlement programs for major remaining refugee problems.

C. Military

- Enemy plans new general offensive, "Liberation Committees" and terror to counter GVN gains.
- Enemy plans for major internal disorders in Saigon are aimed at Paris talks.
- Enemy losses remain above 2,000 per week.

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Authority NLS/CBS 10By MP/irs, NARA, Date 1-27-98

D. Political

-- Pressure from Assembly and others for cabinet changes continues; early major reshuffling unlikely.

-- Progress on national political organization continues slow; Thieu reluctant to upset natural pattern of development.

E. Economic

--General price stability has been achieved in past five months.

-- End of rice subsidy achieved economic objectives, but resulting price rise prompted political attacks.

F. Conclusion

-- 1968 will go into history as year SVN people were most severely tested and not found wanting; if we continue patient and confident in our own strength, we will get next year the kind of peace we have sought.

Bromley Smith

Thursday, December 19, 1968

33h

FOR THE PRESIDENT FROM BUNKER (Saigon 45163)

Herewith my seventy-fourth message

Vietnam: Continuing Progress and some Problems Ahead

I reported in my last message on November 30th that, despite preoccupation with the problem of negotiations, the Government and people of South Vietnam continue to make steady, indeed accelerating, progress in many ways. This has continued to be true.

The forming and dispatch of the delegation for Paris was a matter of great concern involving the necessity of obtaining assembly approval and requiring a Supreme Court decision. Thieu handled this matter, I think, in an impressive fashion, displaying respect for the institutions set up by the constitution, and at the same time seeing to it that they worked effectively. During this period, some impressive gains were scored in pacification while relentless military pressure was kept on the enemy. Both the gains and the pressures have continued.

Vietnamese leadership is, of course, well aware that success in the pacification and military sphere will have a direct effect on the negotiations. By extending territorial control and driving enemy forces across the border into Laos and Cambodia, the South Vietnamese greatly strengthen their position at Paris. This is obviously a strong incentive, and Thieu is pushing his people to get on with the war effort and pacification faster and with better effect than at any time since I arrived.

The current difficulties with Hanoi over procedural matters are part of the same problem we had to resolve when the Government of Vietnam held back right after the bombing halt. It took several weeks of arduous and patient negotiations to persuade them to go, and in the course of those negotiations, the Government of Vietnam made some points which in their view go to the very heart of the problem, especially that they must not be placed on the same footing as the National Liberation Front. We accepted these points, first in the statement of November 13 and later more formally in our statement of November 26. It was on this basis that the South Vietnamese delegation finally left here December 7.

The Government of Vietnam regards these matters as of the utmost importance. They see the initial moves as critical, believing the enemy will conclude from them whether he can get us to make important concessions on matters of substance and whether he can divide the US and the Government of Vietnam. As the North Vietnam analysts within the Inter-Agency Planning Group in Washington correctly

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E.O. 12958, Sec. 3.6
NLJ 02-202
By NA, NARA, Date 6-19-03

~~SECRET/NODIS~~

observe, "Hanoi will probably be rather sticky on procedural matters. To the North Vietnamese--as to the South Vietnamese, procedure is substance, because procedure can determine substance." The South Vietnamese fear that we may be over eager to make concessions. The Clifford interview of December 15, in which the Secretary said that we need not work out common positions with our Vietnamese allies, that we could discuss military matters, including troop withdrawals, unilaterally with the North Vietnamese enemy, and hinted in fact that we had already done so, and deprecated the importance of the seating arrangement, as tended to confirm those suspicions in the minds of the Vietnamese.

I think we must face the fact that the Government of Vietnam simply does not agree that the present situation requires us to act with undue haste. They consider that time is on our side, the war is going well (thanks to our help as well as to their increased efforts), they are getting stronger and the enemy is getting weaker. I think they are right in their assessment of the effect of premature concessions on the climate here in South Vietnam. If our side caves in during the first preliminary round, there could be a serious decline in morale here. People will judge the chances of freedom in South Vietnam, and the firmness of our commitment to that freedom, by how we handle ourselves--the U. S. and the Government of Vietnam together -- during the opening phase of the talks.

The enemy said for years he would not negotiate while the bombing went on, then he did negotiate while the bombing went on. He said we had to meet in Phnom Penh or Warsaw, and then he agreed to meet in Paris. He said he would not accept conditions in return for the bombing halt; finally he did accept conditions. He insisted on a secret joint minute, and abandoned that in the face of our firm rejection. He now says that he will not sit down unless the "four-sided" character of the negotiations is recognized. Since we are not going to recognize that, he will settle for less. With the Communists (indeed, in my experience, this is not confined to the Communists), fruitful negotiations are rarely advanced by being accommodating, especially at the beginning. In fact, I believe that by showing ourselves too eager for early results, we may make the achievement of a viable solution to the conflict more difficult and more time consuming in the end.

Expanding Government authority; I accompanied Thieu and Huong to Ninh Thuan Province December 1 for another of his on-the-spot inspections of the accelerated pacification program. He has now visited all four Corps areas in an effort to improve the program and give it more impetus. While his main effort is on pacification, he looks into the total effort, urging more village and hamlet elections as security permits, improving and strengthening local administrations, and taking special note of the Chieu Hoi program. He also emphasizes the attack on the Viet Cong infrastructure (Phoenix) wherever he goes trying to make sure that local officials give it high priority. He especially made the point that Phoenix personnel must target the enemy's "liberation committees" and so disrupt enemy preparations for the coming political contest.

The local authorities in Ninh Thuan told Thieu Saturday that between November 1 and December 1 the number of hamlets in which government committees stay around the clock has increased from 90 to 239 in that province, a good indication of

increasing security in the countryside. This is a trend taking place throughout the country. Thieu hammered away at the importance of extending territorial control, bringing the government to the hamlets instead of pulling people into the province or district towns. He was not satisfied with the Chieu Hoi rate and told officials they were too slow in arming the local self-defense groups. Crowds turned out for him at many stops, and I thought he handled himself very well in moving among the people and talking with them. Judging by his performance Saturday, and on other occasions when I have observed him, I believe Thieu is in no danger of becoming insulted from the situation as Diem did.

Results to date of the accelerated pacification program appear even better than we had hoped when the effort was launched. Relatively secure population reached a new high of 73.3 percent at the end of November, while both contested and Viet Cong controlled population dropped to new lows--13.3 percent and 13.4 percent respectively. Importantly, most of the improvement was among the rural population, with a net gain of 586,000 rural people in the relatively secure category. Overall, at the end of last month, there were 636,800 additional people living in areas considered to be under reasonably good Government of Vietnam control.

These gains in territorial security and population control are due in part to the slackening of enemy opposition, but that lack is in turn due in considerable degree to the fact that we continue to push him relentlessly. While the enemy has recently expended a good deal of effort on propaganda and the organization of his liberation committees, this has had little impact. Should he be able to mount a new offensive-- and I have considerable doubt that he will be able to get one off the ground -- the rate at which recent gains have taken place could be slowed. Even during the August-September offensive, however, we continued to make gains.

It is now clear that our pacification goals, which were originally thought to be too ambitious, were quite realistic. They may in fact have been too low for some of them have already been exceeded. Thieu told me December 11 that as a result of the success we have had so far, he wants to launch another accelerated effort after Tet. He also hopes to speed up the planned increase of Regional Forces and Popular Forces, compressing the proposed 1969 recruitment into three to six months. (Thieu cast this objective in the context of the possible withdrawal of 50,000 to 100,000 American troops next year, and the need to extend territorial security.)

Chieu Hoi rates have been good and have been getting better. While the overall 1968 total will be considerably below that of 1967 (due to the setback following Tet), the monthly rate picked up this fall and has run well ahead of the corresponding figures ever since September. During last month, the rate was double that of November 1967.

A major element in the improved Chieu Hoi rate of the past several months is the "third party" awards system. Under this plan, cash awards are paid to any

citizen who induces a Viet Cong to rally. This has been extremely effective in Fourth Corps and is now being introduced in the three other Corps areas. Another new tactic which promises further increases is the "turn around" system which involved training Hoi Chanh to induce other Viet Cong to rally.

During the period January 1 to the end of October, 11,066 identified members of the Viet Cong infrastructure were neutralized under the Phoenix program. On October 20 an accelerated Phoenix effort was kicked off and in November, 2,338 Viet Cong infrastructure were killed, captured, or rallied. This is by far the highest monthly total yet achieved. The 1968 goal of 12,000 Viet Cong infrastructure has already been exceeded by more than a thousand.

These rather dramatic figures do not mean, however, that the Viet Cong infrastructure is about to disintegrate. We estimate current infrastructure strength at about 82,000. Of those we have neutralized, roughly 85 percent were at a low level in the VC organization and are relatively easy to replace. Nevertheless, the program, together with other elements of the offensive, is yielding dividends in many ways; for example, by making it more difficult for the enemy to recruit, to collect taxes, and to gather intelligence. Enemy documents single out the program intelligence and military action, which is a recognition that the Phoenix Program, targeted on their cadres, is one of the most dangerous threats to their control.

I should also note that the civil defense effort is moving ahead with considerable momentum. As of mid-December, some 930,000 persons were enrolled in the program. Of these, 431,000 had been trained and 74,500 armed. While the effectiveness of these groups probably varies greatly, the civilian population has at least been drawn into the war effort to a far greater degree than ever before. Thieu has personally given this program strong support. I have seen him upbraid local officials who were reluctant to get arms into the hands of the people. He told them he wants the self-defense forces armed, even if it entails some risk.

We are still keeping attention focussed on the refugee problem. The GVN is increasingly thinking in terms of resettlement of these people. In November alone, nearly 55,000 refugees were resettled, some into areas secured during the accelerated pacification campaign.

Intelligence indicates that the enemy is trying to respond to our recent gains by planning a new general offensive, the establishment of "Liberation Committees", and terror. General Abrams tells me that there was massive evidence of enemy plans for a general attack on the night of December 12-13. That the attacks did not materialize is very probably due to our spoiling actions. However, the enemy continues to move at least three divisions and possibly as many as five into positions from which they could try to make a thrust at Saigon. Elements of the First Air Cavalry Division are being repositioned to add to the already powerful forces we have deployed to block a possible enemy advance, and I believe there is little chance that any large numbers could reach the Saigon area.

More troublesome, perhaps, is the enemy plan for internal disorders in Saigon. Some reports speak of a plan to infiltrate 1,000 trained sappers and armed propagandists into the city. A December 12 rallier who was a major in enemy strategic intelligence, revealed that the enemy plans called for 600 "special action" troops to penetrate Saigon, of which 400 are supposed to be in the city already. While any activities by these groups would be of little military importance, one can imagine what the world press would make of them. It is the propaganda effect which is undoubtedly the enemy's objective with the view to strengthening his position in Paris.

The GVN has reacted to the infiltration threat with increased police activity and a standing police alert, and captured agents and defectors have supplied names and

arms cache locations. On the periphery of the city, ward and subward chiefs are being replaced by military officers. These men have platoons under their command and in the more insecure areas. The purpose is to step up action against the VC infrastructure and maintain better control over the population in the more sensitive areas.

Our counteractions include massive B-52 strikes against staging areas. According to some late intelligence, the enemy attack may not be triggered until the 20th or even the 23rd and possibly may be postponed until some time in January. If an attack should come around the 23rd of this month, I think we may have to re-examine the question of the Christmas truce.

While the enemy has been preparing for this expected attack, our forces have kept the pressure on him. We have been pushing into his long untouched base areas and destroying his support facilities. Although our casualties have been down sharply, enemy losses were still over 2,000 per week for the last two weeks and as of December 14, the total for the year was 186,000 enemy casualties. If he attempts another offensive, his casualties will go even higher. If other normal losses, including non-combat losses, are taken into account, it is clear that these will roll well over 200,000 for the year, and I believe this has been a major factor in his willingness to go to Paris.

Political Developments: On the political side, probably the most interesting development is the continued pressure for Cabinet changes. I noted in my last report the resignation of Information Minister Thien (which has not yet been accepted) and the Senate vote of "dissatisfaction" in the performance of the Ministers of Foreign Affairs and Education.

During the December 7 closed Assembly session, some legislators wanted a government reorganization as the price of Assembly approval for the dispatch of the GVN delegation to Paris. Cooler heads prevailed but the chairman of the Senate did send a letter to Thieu with the "suggestion" that the Cabinet be strengthened.

The Lower House has also asked the Prime Minister and three members of his Cabinet to appear before it about the recent GVN decision to end the rice subsidy. That decision resulted in an increase in the price of rice to the consumer, a fact not without some political significance; Thieu said to me that it had caused a "typhoon" at the Assembly. The sound economic reasons behind the move were not properly explained, and some political leaders are trying to exploit the issue. Unless the Prime Minister moves beforehand to forestall some of his critics, his interpellation on this issue may go considerably less smoothly than his appearance before the Senate, which I reported in my last message. Thieu told me, however, that the GVN intends to stick to its guns on the rice decision and indeed to introduce other measures to raise revenue.

These developments, plus considerable press speculation, have created the rather general expectation that, at the least, several ministers will be replaced. Some press stories have gone much further, predicting the formation of super-ministries and the establishment of a Government of National Union. However, Huong as well as the President, do not like to act under pressure, and I therefore doubt a major Cabinet reshuffle in the immediate future. I am not sure, however, that Thieu and Huong find the pressure for Cabinet changes altogether unwelcome. Thieu has been less than pleased with Information Minister Thien for some time. Thien's heavy-handed treatment of the press has made no friends for the government, either here or abroad. His resignation is thus likely to be accepted, and I have strongly hinted to Thieu that he needs an effective information effort, not only in Paris, but also here, which is hardly possible with a lame duck Minister of Information whose authority has been badly eroded.

Progress toward establishing a national political organization continues slow. I talked at length with President Thieu about the Lien Minh on December 11. I said that while we saw both strengths and weaknesses in the organization, we felt that the basic concept was sound, that the Lien Minh can command people's attention and can do things with the participation of the people. I added, however, that I did not think the project would gather momentum unless there is a greater expression of Presidential interest. I recognized that this must be done quietly and subtly in order to avoid excessive identification of the Lien Minh with the present government.

Thieu agreed, but stressed that it will require a little time for the organization to grow naturally. If it is pressed too rapidly, people will regard it as an artificial creation of the government. He said that people must see it as something that is important for their own future and for the future of their country and that is earning their confidence and support. I also emphasized the importance of getting some private financial support for such an organization. Thieu said this was another reason for letting the organization grow naturally. If people saw that it was something solid, they would gladly contribute money to it. He agreed to look into this question of private financing.

Price Stability - Reduction of Rice Subsidy: The economic situation in the month of November was quite satisfactory. The general price level remained about that of late July, and only in early December was there a slight upward trend; this latter, caused both by weather conditions and by the increase in the price of rice, was reversed in the past week. During the past five months, i. e., since the end of July, there has been really no significant movement in prices.

The reasons for this stability are not at all clear. It does seem evident that the supply situation has improved rather considerably as concerns vegetables and sea foods. It is also possible that transportation costs have moved downward from the strong upward trend that resulted from the Tet offensive.

After much urging from our side and many promises from their side, the GVN increased the price of imported rice on November 26. The wholesale price of US medium grain rice was raised, in Saigon, from 20 to 22 piasters per kilo, and in central Vietnam from 17 to 21. The retail price of US rice in Saigon is now 13 percent higher than it was a month ago. In other words, because the wholesale price rose by 25 percent, about half of the increase has been absorbed in retail margins. Retail prices of domestic rice are only 6 to 9 percent higher than they were a month ago. Rice retail prices in Saigon are now 16 to 20 percent higher than on January 1, 1968, whereas the index as a whole is up 28 percent for the same period.

In addition to its restraining effect on inflationary pressures, a second purpose of the elimination of the subsidy was to increase paddy prices to farmers. By December 1, there had been a significant increase in paddy prices in the delta over those of July 1, ranging from about 50 percent in An Giang and Ba Xuyen to 10 percent in Chau Oc. Prices range from 15 piasters per kilo to 10.5 piasters. The increase appears to be the consequence of the combination of the government purchase scheme and the increase in the price of imported rice.

Conclusion. I do not discount the substantial problems remaining to be dealt with: development of increasingly effective government, particularly in the rural areas; expanding security; political organization; continued improvement of the armed forces, especially the territorial forces; meeting the aspirations of the people for social justice, elimination of corruption, peace, and for economic and social development and improvement of their standard of living. Yet I think it is undeniable that progress has been and is being made in all of these areas. What is especially encouraging is the fact that the rate of progress has accelerated in recent months. I am convinced that the tide is running more strongly with us now than at any time in the past. I believe that 1968 will go into history as the year in which the strength and love of freedom of the South Vietnamese people was most severely tested and not found wanting. For all of us, it has been a long year of great sacrifice. I am convinced that if we continue patient and confident in our own strength, we will get next year the kind of peace we have sought through so many grim trails.

I intend to sum up the major trends and developments of this eventful year in my next message.

Thursday, December 19, 1968 -- 5:45 p. m.

Mr. President:

See file

Bob Murphy has written asking that I convey to you his deep appreciation and happiness over the photographs-- one autographed -- which you so kindly sent him.

W. W. Rostow

rla

35

ACTION

Thursday, December 19, 1968
4:15 p. m.

MEMORANDUM FOR THE PRESIDENT

SUBJECT: New Year's Greetings to Chiefs of State
and Heads of Government

Pres file

The State Department is preparing draft messages from you to all Chiefs of State and Heads of Government conveying New Year's greetings.

The drafts will include a line or two of substance, as was done last year.

Unless you decide otherwise, these drafts will be coming to you for approval next week so that they can be dispatched December 30.

Bromley Smith

Tell State to prepare drafts _____

Prefer not to send messages _____

~~Secret~~
~~CONFIDENTIAL~~

36

FROM BROMLEY SMITH

December 19, 1968

TO THE PRESIDENT (Deliver to Paul Glenn)

SUBJECT: Benham Underground Test

Glenn Seaborg reports that the Benham underground test was fired at 11:30 A. M. today and went as planned.

There was no venting. ~~The~~ preliminary indications are that the yield was as estimated. - *about 1.1 megatons*

The shot was felt in Las Vegas but so far there are no reports of damage.

Further information will be coming in shortly but Chairman Seaborg feels it will merely confirm the initial judgement that nothing unexpected took place.

DECLASSIFIED
E.O. 13292, Sec. 3.5
NLJ/RAC 02-166
By cbm, NARA, Date 6-14-04

ACTION

Thursday
~~Wednesday~~, December 18, 1968

37

MEMORANDUM FOR THE PRESIDENT

Pres file

SUBJECT: Letter of congratulations to USAID Mission in Saigon

Attached is a memorandum from Bill Gaud which describes the success we have had in introducing the new "miracle rice" seed in Vietnam.

The program has, in all truth, been a smashing success. President Thieu is an active and enthusiastic supporter of the program, as are the Vietnamese farmers. The savings to the U.S. taxpayer from the first year's production promises to run about \$20 million. The acreage planted with "miracle rice" seed will be increased five-fold in 1969, and there is a serious expectation that Vietnam will be self-sufficient in rice by 1971.

Gaud is awarding to the Americans involved with this program the AID Meritorious Honor Award. In addition he requests that you sign the attached letter to him acknowledging the success of the program and congratulating the USAID Mission in Vietnam.

I recommend you sign the letter.

W. W. Rostow

Atts

MWright:wpt

37a

December 18, 1968

Dear Bill:

I have noted with a great deal of satisfaction the progress in the accelerated rice production program in Vietnam. Please convey my congratulations to USAID Director MacDonald, and each individual in the Mission whose dedication and superior performance has made possible the outstanding results of this remarkable program.

Sincerely,

**The Honorable
William S. Gaud
Agency for International Development
Washington, D. C. 20523**

LBJ:AID:MW:right:wpt

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON

374

OFFICE OF
THE ADMINISTRATOR

DEC 16 1968

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Special Commendation for Individuals Making Significant Contribution to the Accelerated Rice Production Program in Vietnam

As you know, during the past year the Vietnamese with A. I. D. assistance have mounted an outstandingly successful program to introduce the new "miracle" rice seeds, IR-8 and IR-5, developed in the Philippines. I believe that the group of Americans involved deserve special recognition and I am planning to give the group A. I. D. 's Meritorious Honor Award.

Experiments with IR-8 rice seed in the summer of 1967 in Vietnam had demonstrated that Vietnamese farmers could more than double yields through the proper use of this new seed and that the new seed needs only two-thirds of the time required for most Vietnamese rice strains to mature, facilitating double cropping. In many ways, despite all the problems of the Tet offensive, this has been the most intensive program undertaken by any country to introduce the new rice seeds. Some 20,000 farmers have already harvested more than 50,000 acres of the new rice and an 8,000 farmer sample indicates an average yield of about 2 tons per acre, 1 1/2 times normal yields. An additional 60,000 acres have been planted with the new seed.

Thus, in one year's time, this program will have produced a net increase in rice production of over 100,000 tons, resulting in savings of approximately \$20 million to the United States, and providing greatly increased material and psychological well-being to tens of thousands of Vietnamese farm families.

The Vietnamese Government, with our assistance, is planning a five-fold increase, to 500,000 acres, in the planting of the new rice in the spring of 1969. We are reasonably confident that Vietnam will be self-sufficient in rice by 1971 if there is no deterioration in the security situation.

This kind of progress would not have been possible in the face of the Communist offensives this past winter and spring without the all-out support of top Vietnamese officials as well as the Vietnamese and American staff directly involved. President Thieu personally planted plots of the new rice in April and returned to harvest the plants in August. When the Communists spread false rumors that the new rice would cause leprosy and cancer, President Thieu ate the new rice in public.

Much of the credit for this highly successful program is due to the individual efforts and dedication of those who served in the U. S. A. I. D. Office receiving the special commendation. If you feel it's appropriate, I'd very much appreciate if you would sign a letter congratulating our Mission staff who worked on this program. I'm attaching a proposed letter for your signature.



William S. Gaud

Approve Letter _____

Disapprove Letter _____

38

ACTION

Thursday - December 19, 1968

MEMORANDUM FOR THE PRESIDENT

Pres file

**SUBJECT: Christmas Greetings from President Lopez
of Honduras to President**

President Lopez is spending Christmas holidays in Miami and sent you a message of Christmas wishes (Tab B). A suggested reply is attached at Tab A.

BKS
for W. W. Rostow

Attachments

Tab A - Suggested Presidential response to greetings from Honduran President Lopez

Tab B - President Lopez's message of December 12, 1968.

SWLewis:mm

reference
12-17-68
Confidential
Read to Rostow
memo

Suggested Reply

38a

My most sincere thanks for the thoughtful message you sent me upon your arrival in Miami. The bonds of understanding and friendship between our two countries, to which you refer, are also a source of great satisfaction to me; and I am confident that nothing will be allowed to impair this friendly relationship in the future. With best wishes for your good health and happiness during Christmas and the New Year,

Sincerely,

His Excellency
Oswaldo Lopez Arellano
Hotel Sheraton for Ambassadors
Miami, Florida

UNOFFICIAL TRANSLATION

The President
The White House

Upon finding myself in the City of Miami where I have come for medical reasons, my first wish has been to send you and your distinguished family a cordial greeting and my sincere wishes for your happiness at Christmas and in the New Year. It is a source of great satisfaction for me to find myself in this friendly country, united to Honduras by so many bonds of understanding and genuine friendship. With renewed assurances of sympathy and personal support,

Oswaldo Lopez, President
of the Republic of Honduras

~~SECRET~~

39
INFORMATION

Wednesday, December 18, 1968
5:35 p. m.

MEMORANDUM FOR THE PRESIDENT

Pres file

SUBJECT: Possible Agreement on Release of Pueblo Crew

The North Koreans have agreed to meet our representative at 9:00 p. m. Washington time tonight. There is a real possibility that a firm agreement will be reached and a time set for the release of the crew, perhaps tomorrow night. We will not hear in Washington probably before 2:00 a. m. our time.

If agreement is reached tonight, the State Department will announce that fact only and the scheduled time of the release of the crew members.

In the event of an agreement, I have asked the Situation Room to so inform you at the time the morning reports are sent out to you. By then, 6:30 a. m., we may have additional information about whether the decision broke clean or is still dangling.

We are in touch with George Christian and a statement from you will be required as soon as the crew is actually freed.

A task force is now at work and will continue following this minute by minute with the objective of handling any North Korean effort to mislead the public with respect to the crew's release.

Bromley Smith

DECLASSIFIED
E.O. 12958, Sec. 3.5
NSC Memo, 1/30/95, State Dept. Guidelines
By *g*, NARA, Date *2-24-98*

~~SECRET~~

40

INFORMATION

Wednesday, December 18, 1968, 5:00 P. M.

Free file

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Meetings with Heads of Government and Chiefs of State--
November 1963 to Date

Tab A is a chronology of Presidential meetings with Heads of Government and Chiefs of State from November 1963 to date.

NOTE: The number of meetings reflects the number of times the President conferred with a visitor, thus on a two-day visit of a Chief of State, we have arbitrarily assumed a meeting with the President each day.

Tab B is a current listing of the same meetings broken down by location--those held in the US and those held abroad.

Tab C is another listing of the same meetings broken down by country.

Tab D is a listing of all meetings with Heads of Government and Chiefs of State, private or official, so far during 1968.

The President has met with 84 Heads of Government and Chiefs of State out of the 118 countries the United States Government recognizes as of today.

The President has met a representative from every country this Government recognizes.

Bromley Smith

BKS:amc

MEETINGS BETWEEN THE PRESIDENT AND HEADS OF GOVERNMENT AND CHIEFS OF STATE

<u>1968</u>		<u>Country</u>	<u>Place</u>	
1-2	Jan. 7-8	Prime Minister Eshkol	Israel	Ranch
3	Jan. 22	Prime Minister Burnham	Guyana	Private - Wash., D. C.
4-5	Feb. 8-9	Prime Minister Wilson	UK	Wash., D. C.
6	Mar. 14	Prime Minister Egal	Somalia	Wash., D. C.
7	Mar. 20	President Stroessner	Paraguay	Wash., D. C.
8	Mar. 27	President Tubman	Liberia	Wash., D. C.
9	Apr. 10	Chancellor Klaus	Austria	Wash., D. C.
10	Apr. 17	President Park	Korea	Honolulu
11-12	Apr 25-26	King Olav	Norway	Wash., D. C.
13	May 9	Prime Minister Ramgoolam	Mauritius	Private - Wash., D. C.
14-15	May 8-9	Prime Minister Thanom	Thailand	Wash., D. C.
16-17	May 15-16	President Bourguiba	Tunisia	Wash., D. C.
18-19	May 27-28	Prime Minister Gorton	Australia	Wash., D. C.
20	June 4	President Trejos	Costa Rica	Wash., D. C.
21	June 7	Prime Minister Shearer	Jamaica	Private - Wash., D. C.
22	June 8	Prime Minister Lynch	Ireland	Kennedy Funeral
23-24	June 11-12	Shah of Iran	Iran	Private - Wash., D. C.
25	July 5	President Barrientos	Bolivia	Ranch
26	July 6-8	President Sanchez & Central American Presidents	El Salvador	El Salvador

	<u>1968</u>		<u>Country</u>	<u>Place</u>
27	July 6-8	President Trejos	Costa Rica	Costa Rica
28		President Mendez	Guatemala	Guatemala
29		President Lopez	Honduras	Honduras
30		President Somoza	Nicaragua	Nicaragua
31-33	July 18-20	President Thieu	Vietnam	Honolulu
34	July 26	Prime Minister Burnham	Guyana	Private - Wash., D. C.
35	Sept. 11	Prime Minister Barrow	Barbados	Wash., D. C.
36	Sept. 18	Prime Minister Makhosini	Swaziland	(UN)- Wash., D. C.
37	Oct. 2	President Tombalbaye	Chad	Wash., D. C.
38-39	Oct. 9-10	Prime Minister Holyoake	New Zealand	Wash., D. C.
40-41	Dec. 5-6	Prime Minister Hoveyda	Iran	Wash., D. C.
42	Dec. 10	Prime Minister Lee Kuan Yew,	Singapore	Private Wash., D. C.
43-44	Dec. 11-12	Ruler of Kuwait	Kuwait	Wash., D. C.

TOTAL: 44

MEETINGS BETWEEN THE PRESIDENT AND HEADS OF GOVERNMENT
AND CHIEFS OF STATE

<u>1967</u>		<u>Country</u>	<u>Place</u>
Jan 26	President-elect Costa e Silva	Brazil	Washington, D. C.
Feb 9	King Hassan II	Morocco	Washington, D. C.
Feb 10	King Hassan II	Morocco	Washington, D. C.
Feb 13	Emperor Haile Selassie	Ethiopia	Washington, D. C.
Feb 14	Emperor Haile Selassie	Ethiopia	Washington, D. C.
Mar 14	Prime Minister II Kwon Chung	Korea	Washington, D. C.
Mar 20	Chairman Thieu and Prime Minister Ky	Vietnam	Guam
Mar 21	Chairman Thieu and Prime Minister Ky	Vietnam	Guam
Mar 28	Prime Minister Maiwandwal	Afghanistan	Washington, D. C.
Apr 3	President Sunay	Turkey	Washington, D. C.
Apr 4	President Sunay	Turkey	Washington, D. C.
Apr 6	President-elect Somoza	Nicaragua	Washington, D. C.
Apr 11-14	President Gestido President Ongania President Costa e Silva President Frei President Lleras President Trejos Fernandez President Balaguer President Arosemena President Mendez President Lopez President Diaz Ordaz President Guerrero President Robles President Stroessner President Belaunde Prime Minister Williams President Leoni	Uruguay Argentina Brazil Chile Colombia Costa Rica Dom. Rep. Ecuador Guatemala Honduras Mexico Nicaragua Panama Paraguay Peru Trinidad and Tobago Venezuela	Punta del Este, Summit Conference, Uruguay

1967

Apr. 14	Minister-President Pengel Governor de Vries	Surinam	Surinam.
Apr. 19	Prime Minister Holyoake	New Zealand	Washington, D. C.
Apr. 20	Prime Minister Holyoake	New Zealand	Washington, D. C.
Apr. 24	President Luebke Chancellor Kiesinger	Germany	Bonn (Adenauer Funeral), Germany
Apr. 25-26	President Luebke Chancellor Kiesinger President deGaulle Prime Minister Moro Prime Minister Wilson Prime Minister Krag Prime Minister Boeynants Chancellor Klaus Prime Minister Werner Prime Minister Petrus de Jong Prime Minister Erlander Prime Minister Per Borten Prime Minister Demirel Prime Minister Benediktsson Deputy Prime Minister Aiken	Germany Germany France Italy UK Denmark Belgium Austria Luxembourg Netherlands Sweden Norway Turkey Iceland Ireland	Bonn/Germany
May 9	Vice President Yen	China	Washington, D. C.
May 25	Prime Minister Pearson Governor-General Michener	Canada Canada	Canada
Jun. 1	Prime Minister Holt	Australia	Washington, D. C.
Jun. 2	Prime Minister Wilson	UK	Washington, D. C.
Jun. 8	President Banda	Malawi	Washington, D. C.
Jun. 17-19	Prime Minister Holt	Australia	Camp David
Jun. 22	Prime Minister Krag	Denmark	Washington, D. C.
Jun. 22	Prime Minister Moro	Italy	Washington, D. C.
Jun. 23	Premier Kosygin	USSR	Glassboro, N. J.
Jun. 25	Premier Kosygin	USSR	Glassboro, N. J.

1967

Jun. 26	Prime Minister Maurer	Romania	Washington, D. C.
Jun. 27	King Bhumibol	Thailand	Washington, D. C.
Jun. 28	King Hussein	Jordan	Washington, D. C.
Jul. 18	President Asgeirsson	Iceland	Washington, D. C.
Aug. 14	President Kayibanda	Rwanda	Washington, D. C.
Aug. 15	Chancellor Kiesinger	Germany	Washington, D. C.
Aug. 16	Chancellor Kiesinger	Germany	Washington, D. C.
Aug. 17	President Houphouet-Boigny	Ivory Coast	Washington, D. C.
Aug. 22-23	Shah of Iran (Pahlavi)	Iran	Washington, D. C.
Sep. 11	King Constantine	Greece	Washington, D. C.
<hr/>			
Sep. 18-19	President Saragat	Italy	Washington, D. C.
Sep. 22	Prime Minister Jonathan	Lesotho	Washington, D. C.
Sep. 26	President Diori	Niger	Washington, D. C.
Sep. 27	Prime Minister Krag	Denmark	Washington, D. C.
Oct. 4	Prime Minister Olivier	Malta	Washington, D. C.
Oct. 10	General Ankrah	Ghana	Washington, D. C.
Oct. 13	Prime Minister Shearer	Jamaica	Washington, D. C.
Oct. 17	Prime Minister Lee	Singapore	Washington, D. C.
Oct. 20	Prime Minister Phouma	Laos	Washington, D. C.

1967

Oct. 24	President Ahidjo	Cameroon	Wash., D. C.
Oct. 26-28	President Diaz Ordaz	Mexico	Wash-Tex-Mex
Nov. 1-2	King Mahendra	Nepal	Wash., D. C.
Nov. 8	King Hussein	Jordan	Wash., D. C.
Nov. 9	Crown Prince Vong	Laos	Wash., D. C.
Nov. 14-15	Prime Minister Sato	Japan	Wash., D. C.
<u>Holt Funeral</u>			
Dec. 20	Prime Minister McEwen	Australia	Canberra
	Prime Minister Holyoake	New Zealand	Canberra
Dec. 21	Prime Minister Holyoake	New Zealand	Canberra
	Prime Minister McEwen	Australia	Canberra
	President Park	Korea	Canberra
	Prime Minister Thanom	Thailand	Canberra
	President Thieu	Vietnam	Canberra
	President Marcos	Philippines	Canberra
	Prime Minister Lee Kuan Yew	Singapore	Canberra
	Prime Minister Tunku Abdul Rahman	Malaysia	Canberra
Dec. 22	Prime Minister Wilson	UK	Melbourne
Dec. 23	President Ayub Khan	Pakistan	Karachi
	President Saragat	Italy	Italy
	Prime Minister Moro	Italy	Italy

Total 107

MEETINGS BETWEEN THE PRESIDENT AND HEADS OF GOVERNMENT
AND CHIEFS OF STATE

<u>1966</u>		<u>Country</u>	<u>Place</u>
Feb. 7	Chairman Thieu and Prime Minister Ky	Vietnam	Hawaii
Feb. 8	Chairman Thieu and Prime Minister Ky	Vietnam	Hawaii
Mar. 14	President Diaz Ordaz	Mexico	Mexico
Mar. 17	Prime Minister Senanayake	Ceylon	Washington, D. C.
Mar. 25	President Gursel	Turkey	Washington, D. C.
Mar. 28	Prime Minister Gandhi	India	Washington, D. C.
Mar. 29	Prime Minister Gandhi	India	Washington, D. C.
Apr. 27	Prime Minister Krag	Denmark	Washington, D. C.
<hr/>			
Jun. 9	President Schick	Nicaragua	Washington, D. C.
Jun. 21	King Faisal	Saudi Arabia	Washington, D. C.
Jun. 22	King Faisal	Saudi Arabia	Washington, D. C.
Jun. 29	Prime Minister Holt	Australia	Washington, D. C.
Jul. 13	Prime Minister Holt	Australia	Washington, D. C.
Jul. 14	Prime Minister Holt	Australia	Washington, D. C.
Jul. 20	President-elect Barrientos	Bolivia	Washington, D. C.
Jul. 21	Prime Minister Burnham	Guyana	Washington, D. C.
Jul. 22	Prime Minister Burnham	Guyana	Washington, D. C.
Jul. 29	Prime Minister Wilson	UK	Washington, D. C.
Aug. 2	President Shazar	Israel	Washington, D. C.
Aug. 21	Prime Minister Pearson	Canada	Canada

1966

Sep. 8	General Ne Win	Burma	Washington, D. C.
Sep. 9	General Ne Win	Burma	Washington, D. C.
Sep. 14	President Marcos	Philippines	Washington, D. C.
Sep. 15	President Marcos	Philippines	Washington, D. C.
Sep. 26	Chancellor Erhard	Germany	Washington, D. C.
Sep. 27	Chancellor Erhard	Germany	Washington, D. C.
Sep. 28	President Senghor	Senegal	Washington, D. C.
Oct. 5	Deputy Prime Minister Razak	Malaysia	Washington, D. C.
Oct. 13	Prime Minister Phouma	Laos	N. Y.
Oct. 19	Prime Minister Holyoake	New Zealand	Wellington
Oct. 20	Prime Minister Holyoake	New Zealand	Wellington
Oct. 20	Prime Minister Holt Governor-General Casey	Australia	Canberra
Oct. 21	Prime Minister Holt	Australia	Canberra-Melbourne
Oct. 22	Prime Minister Holt	Australia	Sydney - Canberra
Oct. 23	Prime Minister Holt	Australia	Brisbane
Oct. 23	President Marcos	Philippines	Manila
Oct. 23	President Park	Korea	Manila
Oct. 23	Prime Minister Thanom	Thailand	Manila
Oct. 23	Chairman Thieu and Prime Minister Ky	Vietnam	Manila
Oct. 24	Chairman Thieu and President Marcos	Vietnam Philippines	Manila

	President Park	Korea	Manila
	President Marcos	Philippines	
	Chairman Thieu	Vietnam	
	Prime Minister Holt	Australia	
	Prime Minister Holyoake	New Zealand	
	Prime Minister Thanom	Thailand	
20	President Park	Korea	Manila
	President Marcos	Philippines	
	Chairman Thieu	Vietnam	
	Prime Minister Holt	Australia	
	Prime Minister Holyoake	New Zealand	
	Prime Minister Thanom	Thailand	
	President Marcos	Philippines	Manila
	Chairman Thieu	Vietnam	Vietnam
	President Marcos	Philippines	Manila
	King Bhumibol and Queen Sirikit	Thailand	Thailand
	Prime Minister Thanom	Thailand	Thailand
	King Bhumibol	Thailand	Thailand
30	King Bhumibol and Queen Sirikit	Thailand	Thailand
	Prime Minister Thanom		
30	Prime Minister Ruler (Abidin) Prime Minister Rahman	Malaysia	Malaysia
	President Park	Korea	Korea
	President Park	Korea	Korea
40	President Park	Korea	Korea
	President Ortiz Ordaz	Mexico	Mexico
	Total.	71	

MEETINGS BETWEEN THE PRESIDENT AND HEADS OF GOVERNMENT
AND CHIEFS OF STATE

<u>1965</u>		<u>Country</u>	<u>Place</u>
Jan 12	Prime Minister Sato	Japan	WASH., D.C.
Jan 15	Prime Minister Pearson	Canada	LBJ Ranch.
Jan 16	Prime Minister Pearson	Canada	LBJ Ranch
Mar 29	President Yameogo	Upper Volta	WASH., D.C.
Apr 3	Prime Minister Pearson	Canada	Camp David

Apr 15	Prime Minister Wilson	United Kingdom	Wash. D. C.
Apr 20	Prime Minister Moro	Italy	Wash. D. C.
Apr 21	Prime Minister Moro	Italy	Wash D. C.
May 17	President Park	Korea	WASH., D.C.
June 4	Chancellor Erhard	Germany	Wash. D. C.
June 7	Prime Minister Menzies	Australia	WASH., D.C.
June 9	Prime Minister Menzies	Australia	WASH., D.C.
June 28	Prime Minister Holyoake	New Zealand	WASH., D.C.
July 6	Prime Minister Menzies	Australia	WASH., D.C.

Oct 4	Pope Paul VI	Vatican	New York
Dec 14	President Ayub	Pakistan	WASH., D.C.
Dec 15	President Ayub	Pakistan	WASH., D.C.

1965

Dec 16	Prime Minister Wilson	United Kingdom	Wash. D. C.
Dec 17	Prime Minister Wilson	United Kingdom	Wash. D. C.
Dec 20	Chancellor Erhard	Germany	Wash. D. C.
Dec. 21	Chancellor Erhard	Germany	Wash. D. C.

June >

Total: 21

MEETINGS BETWEEN THE PRESIDENT AND HEADS OF GOVERNMENT
AND CHIEFS OF STATE

<u>1964</u>		<u>Country</u>	<u>Place</u>
Jan. 4	President Segni	Italy	Wash. D. C.
Jan. 15	President Segni	Italy	Wash. D. C.
Jan. 22	Prime Minister Pearson	Canada	WASH., D. C.
Jan. 27	Queen Frederika	Greece	WASH., D. C.
Feb. 5	Prime Minister Pearson	Canada	WASH., D. C.
Feb. 12	Prime Minister Home	United Kingdom	Wash. D. C.
Feb. 13	Prime Minister Home	United Kingdom	Wash. D. C.
Feb. 21	President Mateos	Mexico	California
Apr. 9	Prime Minister Choi	Korea	WASH., D. C.
Apr. 14	King Hussein	Jordan	WASH., D. C.
May 19	King Mwambutsa IV	Burundi	WASH., D. C.
May 27	President de Valera	Ireland	WASH., D. C.
May 28	Prime Minister Pearson	Canada	New York
June 1	Prime Minister Eshkol	Israel	WASH., D. C.
June 2	Prime Minister Eshkol	Israel	WASH., D. C.
June 5	Shah Pahlavi	Iran	WASH., D. C.
June 9	Prime Minister Krag	Denmark	WASH., D. C.

1964 (cont'd)

June 12	Chancellor Erhard	Germany	Wash. D. C.
June 22	Prime Minister Inonu	Turkey	WASH., D.C.
June 23	Prime Minister Inonu	Turkey	WASH., D.C.
June 24	Prime Minister Papandreou	Greece	WASH., D.C.
June 24	Prime Minister Menzies	Australia	WASH., D.C.
June 25	Prime Minister Papandreou	Greece	WASH., D.C.
June 30	President Orlich	Costa Rica	WASH., D.C.
July 1	President Orlich	Costa Rica	WASH., D.C.
July 20	Prime Minister Holyoake	New Zealand	WASH., D.C.
July 22	Prime Minister Tanku Rahman	Malaysia	WASH., D.C.
July 23	Prime Minister Tanku Rahman	Malaysia	WASH., D.C.
July 27	President Tsiranana	Malagasy	WASH., D.C.
July 28	President Tsiranana	Malagasy	WASH., D.C.
Sept. 16	Prime Minister Pearson	Canada	Montana and Canada
Sept. 25	President Mateos	Mexico	Texas
Oct. 5	President Macapagal	Philippines	WASH., D.C.
Oct. 11	President Macapagal	Philippines	California
Dec. 2	President Kaunda	Zambia	Wash. D. C.

1964 (cont'd)

Dec. 4	Prime Minister Banda	Malawi	WASH., D. C.
Dec. 7	Prime Minister Wilson	United Kingdom	Wash. D. C.
Dec. 8	Prime Minister Wilson	United Kingdom	Wash. D. C.

Nov. 28 Chancelier GORNA

Total: 42

MEETINGS BETWEEN THE PRESIDENT AND HEADS OF GOVERNMENT
AND CHIEFS OF STATE

<u>1963</u>		<u>Country</u>	<u>Place</u>
Nov. 25	President Shazar Chancellor Gorbach King Baudouin I Prime Minister Bustamante	Israel Austria Belgium Jamaica	Wash. D. C.
Nov. 25	Prime Minister Pearson	Canada	Wash. D. C.
Nov. 25	Queen Frederika	Greece	Wash. D. C.
Nov. 25	President de Gaulle	France	Wash. D. C.
Nov. 25	Acting President Park *Mayor Brandt	Korea Germany	Wash. D. C.
Nov. 25	Prime Minister Ikeda Prime Minister Erlander * Prince Jean * Deputy Prime Minister Mikoyan * Prince Philip	Japan Sweden Luxembourg USSR UK	Wash. D. C.
Nov. 26	President Macapagal	Philippines	Wash. D. C.
Nov. 26	Emperor Haile Selassie I	Ethiopia	Wash. D. C.
Nov. 26	Prime Minister Inonu	Turkey	Wash. D. C.
Nov. 26	Prime Minister Douglas-Home	United Kingdom	Wash. D. C.
Nov. 26	President Luebke	Germany	Wash. D. C.
Nov. 26	Chancellor Erhard	Germany	Wash. D. C.
Nov. 26	President de Valera	Ireland	Wash. D. C.
Nov. 26	Prime Minister Krag	Denmark	Wash. D. C.
Nov. 27	Prime Minister Kantol	Cambodia	Wash. D. C.
Nov. 27	Prime Minister Krag	Denmark	Wash. D. C.
Nov. 28	Chancellor Erhard	Germany	LBJ Ranch
Nov. 29	Chancellor Erhard	Germany	LBJ Ranch

Total: 22

*Not included in total

PRESIDENTIAL MEETINGS WITH CHIEFS OF STATE AND HEADS OF GOVERNMENT (11/63-12/17/68)

	<u>Meetings in the Continental US</u>	<u>Meetings Abroad</u>	<u>Total</u>
1963	22	0	22
1964	38	1	39
1965	21	0	21
1966	30	41	71
1967	53	54	107
1968	39	5	44
	203	101	304

PRESIDENTIAL MEETINGS WITH CHIEFS OF STATE AND HEADS OF GOVERNMENT (11/63-12/68) BY COUNTRY

TAB C

40b

40b

	<u>Total</u>	<u>Country</u>
1963	18	Israel, Austria, Belgium, Jamaica, Greece, Canada, France, Korea, Japan, Sweden, Philippines, Ethiopia, Turkey, UK, Germany, Ireland, Denmark, Cambodia
1964	12	Italy, Mexico, Jordan, Burundi, Iran, Australia, Costa Rica, New Zealand, Malaysia, Malagasy, Zambia, Malawi
1965	2	Upper Volta, Pakistan
1966	11	Vietnam, Ceylon, India, Nicaragua, Saudi Arabia, Bolivia, Guyana, Burma, Senegal, Laos, Thailand
1967	32	Brazil, Morocco, Afghanistan, Uruguay, Chile, Colombia, Dominican Republic, Ecuador, Guatemala, Honduras, Panama, Paraguay, Peru, Trinidad/Tobago, Venezuela, Surinam, Luxembourg, Netherlands, Norway, Iceland, China, USSR, Romania, Rwanda, Ivory Coast, Lesotho, Niger, Malta, Ghana, Cameroon, Nepal, Argentina
1968	9	Somalia, Liberia, Mauritius, Tunisia, El Salvador, Barbados, Swaziland, Chad, Kuwait
	84	

(The USG recognizes 118 countries).

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

December 17, 1968

MEMO FOR GEORGE CHRISTIAN

SUBJECT: Presidential Meetings with Heads of Government and
Chiefs of State

1968 -- Total: 44 meetings

Private Meetings: Total: 9 --

1/22 PM Burnham, Guyana
5/9 PM Ramgoolam, Mauritius
6/7 PM Shearer, Jamaica
6/8 PM Lynch, Ireland (Kennedy Funeral)
6/11-12 Shah of Iran
7/26 PM Burnham, Guyana
9/18 PM Makhosini, Swaziland
12/10 PM Lee Kuan Yew, Singapore

Official Meetings: Total: 23 -- at the White House

2/8-9 PM Wilson, UK
3/14 PM Egal, Somalia
3/20 Pres. Stroessner, Paraguay
3/27 Pres. Tubman, Liberia
4/10 Chancellor Klaus, Austria
4/25-26 King Olav, Norway
5/8-9 PM Thanom, Thailand
5/15-16 Pres. Bourguiba, Tunisia
5/27-28 PM Gorton, Australia
6/4 Pres. Trejos, Costa Rica
9/11 PM Barrow, Barbados
10/2 Pres. Tombalbaye, Chad
10/9-10 PM Holyoake, New Zealand
12/5-6 PM Hoveyda, Iran
12/11-12 Ruler of Kuwait

Official Meetings: Total: 12 -- other than the White House

1/7-8 PM Eshkol, Israel (ranch)
4/17 Pres. Park, Korea (Honolulu)
7/5 Pres. Barrientos, Bolivia (ranch)
7/6-8 Pres. Sanchez, El Salvador & Central American Presidents
Pres. Trejos, CR
Pres. Mendez, Guatemala
Pres. Lopez, Honduras

Pres. Somoza, Nicaragua
7/18-20 Pres. Thieu, Vietnam (Honolulu)

Attached is the list of Presidential meetings for 1968.

Lou Schwartz

41

~~CONFIDENTIAL~~

Wednesday, 11:10 A.M.
December 18, 1968

Mr. President:

General Clifford and Under Secretary Nitso
do have in mind General Frank S. Besson to
head the Joint Logistic Review Board.

Pres file

Bremley Smith

BKS:amc

CONFIDENTIAL

DECLASSIFIED
White House Guidelines, Feb. 24, 1983
By ly, NARA, Date 2-24-98

Mr. ~~Rostow~~

ACTION ⁴²

*1. [unclear]
2. Pres file*

UNCLASSIFIED

MEMORANDUM FOR THE PRESIDENT

Wednesday, December 18, 1968

SUBJECT: Farewell Message to Amir of Kuwait

The Amir is pleased with his visit here and especially flattered by your attentions. He saw Mr. Nixon in New York yesterday morning and is grateful for that opportunity too.

He returns to Washington informally today for a medical checkup. He will host a lunch at his Embassy Saturday for Kuwaiti students to celebrate the high point of the Muslim holidays. As usual, we would like to have a farewell message from you ready to be delivered as he leaves. We recommend the following:

"As Your Highness departs from our shores, you take with you my warm personal wishes for a safe return to Kuwait and for continued good health and happiness. I am sure you know from your visit with us that you also take warm greetings to your people from the American people. I greatly enjoyed our talks and am confident that they have brought even closer the friendly relations which already exist between our two countries. May God go with you."

Harold H. Saunders

Approve ✓ 12/19/68

Disapprove _____

Call me _____

UNCLASSIFIED

MEMORANDUM

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THE WHITE HOUSE

WASHINGTON

INFORMATION

Wednesday, December 18, 1968

MEMORANDUM FOR THE PRESIDENT

Pres file

Herewith a break down of Presidential meetings with Heads of Government and Chiefs of State from November, 1963 to present:

1963	22
1964	39
1965	21
1966	71
1967	107
1968	44

Total Presidential Meetings: 304

A more complete summary is attached at Tab B.

Bromley Smith

Wednesday, December 18, 1968

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Letter to Korean President Park

Pres file

There follows the suggested text of a message from you to President Park replying to his message of November 30 introducing his Foreign Minister:

"Dear Mr. President: I much appreciate your giving us the opportunity to meet in Washington with your Foreign Minister, Kyu Hah Choi. Although my schedule made it impossible for me to meet with him, I have been fully informed of the discussions between Minister Choi and Secretary of State Rusk, Deputy Secretary of Defense Nitze, AID Administrator Gaud, and Assistant Secretary of State Bundy. These wide-ranging talks were very useful to us, and we are giving urgent consideration to your Foreign Minister's suggestions.

"I would like to take this opportunity, also, to express my profound concern over the provocative landings by North Korean agents on your East coast and their subsequent shocking atrocities. The response of your military police, and homeland reserve forces has been valiant indeed, and has been matched by the heartening display of firmness and bravery by the Korean people. The restraint, coolness, and courage with which you and your countrymen have reacted to the North Korean actions have been admirable. Warm

personal regards, Sincerely, Lyndon B. Johnson."

State feels that a response along the above lines might be helpful in dealing with Park on the Pueblo crew release. If you approve we would give Ambassador Porter (who is flying back to Korea today) discretion on the timing of the delivery to President Park.

I recommend you approve the message.

W. W. Rostow

Approve _____

Disapprove _____

Call me _____

STATE:MWright:wpt