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ASSISTANT SECRETARY OF DEFENSE
WASHINGTON 25, D.C.

INTERNATIONAL SECURITY AFFAIRS

May 20, 1964

I-24,450/64

MEMORANDUM FOR THE SECRETARY OF DEFENSE

SUBJECT: Military Assistance to India - 5-Year Plan

1. Points At Issue. The Indians are seeking (a) long term military commitments from the U. S., (b) U. S. credit assistance of $50 million for FY 65 and (c) F-104G aircraft. We have agreed with them on grant aid assistance for FY 65 (Tab C) and a $10 million credit package for funding in FY 64 (Tab D).

2. Long Term Assistance. We still feel that there is a substantial gap between their idea of a reasonable Plan and ours. See Tab B for the economic implications of their Plan. On foreign exchange expenditures our differences are on the order of $200 - $400 million for the 5-year period of the Plan. I do not think we have as yet reached a point where we can do more than indicate to them that our military assistance program will be a continuing one.

3. FY 65 Credit Assistance. Minister Chavan would like our commitment to provide $50 million of credit in FY 65. I recommend that we say that the amount will be $20 to $50 million depending on the items agreed on and the extent to which the Indians bring their Plan to a more reasonable level. To go to $50 million right now would lose what little leverage we have to induce the Indians to pare down their Plan.

4. Aircraft. Phil Talbot would like to try to offer the following package to the Indians: (a) the 72 F-6As; (b) a willingness to help with the HF-24; and (c) an agreement to assist the Indians in obtaining a Mach 2 aircraft if the HF-24 does not work out. This would be conditioned on their giving up the MIG-21 production. This would in effect be a commitment to supply India with F-104s, possibly fairly soon. These would have to come from U. S. inventory, where a few F-104A/Bs are located, extension of the U. S. Lockheed line, or new

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production of F-104Gs from other countries (Canada, Japan, European Consortium). This would have to be matched by F-104s to the Pakistanis.

I think Phil expects to be turned down, but would like to be turned down after having offered the F-104s. While there may be merit to the idea, I would think we would have difficulty locating the aircraft; it would result in a very expensive competitive air situation between Pakistan and India; and I do not believe the threat justifies it. I recommend, therefore, that we stick to the basic F-6 - HF-24 package without embellishment.

Peter Solbert
Deputy

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SUMMARY OF AND COMMENT ON INDIAN FIVE YEAR PLAN

I. Threat

Plan. The introduction to the Indian Defense Plan emphasizes that the Chicom threat, which is increasing, will be a menace to Indian security for many years to come. The Plan also stresses the Pak threat.

Comment. Our talks with the Indian advance party revealed general agreement on the dimensions of the Chinese threat. The Indians estimate that there are now 150,000 Chinese troops in Tibet and Sinkiang, a figure about 30,000 higher than the US-UK assessment. The Indians also indicate a higher Chicom capability to pre-stock in Tibet than the US-UK. On the air side, there was agreement that the IL-28 represented the basic threat to India; we think the IL-28 range is somewhat less than the Indian estimate; the Indians believe the Chinese have a greater capability to produce MIG aircraft and spares than we do. On the Navy side, we minimized the Chinese submarine threat to India.

US Position. Confirm that there is fundamental agreement on the Chicom ground and air threat. On the Navy side, while we appreciate India's desire to maintain a naval force with some capability, we do not believe the naval threat merits high priority in terms of our resources (MAP or MAS) or in expenditure of excessive rupee or foreign exchange holdings. Moreover, we believe that the close Indian association with the British Navy should be continued and we recommend that the Indians press the British in London later this month on the possibility of the UK meeting some of their priority naval requirements.

We do not accept the implicit premise in the Plan that additional Indian forces are required because of the Pak threat. The Indians should recognize the restraints that we can impose to inhibit any form of Pak military aggression against India, a situation which we consider most unlikely in any event.

II. Ground Force Requirements

1. Plan-Force Levels. The Indian force levels in the five-year plan and the JSOP levels are:

Indian Five-Year Plan	Force Levels Presented in Washington	JSOP - 69
16 divs (incl 1 armd) 1 Armd Brig 6 Indep Inf Brigs (incl 2 para) 5 Truncated Divs (Corps & Army Troops 825,000 less recruits (69,000)	Corps Hq - 5 Inf (Mtn) Div - 7 Inf (Plains) Div - 8 Armd Div - 1 Armd Brig - 2 Para Brig - 2 Inf Brig - 7 Truncated Div - 4 (3 Mtn, 1 Plains)	11 Mtn/Inf Divs 1 Armd Div 1 Armd Brig 1 para Brig

Comment. Our general approach to force levels was that we did not believe it was profitable to continue a dialogue on force levels. Gen. Taylor's position is that if we could get the Indians to develop a plan based on realistic budgetary and foreign exchange limitations we would then avoid arguments over force goals. However, we did make the point that we thought that prior US statements remain valid to the effect that a force level of about 16 divisions and 3 independent brigades seemed adequate in terms of the Chicom threat and Indian internal security requirements.

It should be noted particularly that the Indian Army personnel level is down to 825,000 from earlier estimates that 1,050,000 men would be required. The Truncated Divisions (now set at 3) according to the Indians will be deployed only in an internal security role in central and south India.

We have stressed the emphasis on a qualitative force rather than a quantitative one, recognizing the limitations imposed on the Indians by terrain and lack of lines of communications across the front. We also discussed the possibility of force reductions as the Indian Army improves its mobility and firepower.

Our intelligence supports a figure of 270,000 Chicom combatants that theoretically could be deployed through Tibet and Burma. We estimate that the Paks have an additional 128,000 combat effectives for an overall Chicom/Pak

total of 398,000. The JCS estimate that the Plan would produce 564,000 effectives, a figure which would give the Indians nearly a 1.5:1 advantage against the Paks and Chicoms combined.

2. Plan-Armor. The Indian Plan calls for a modernization requirement of 350 medium (Vickers to be produced at Avadi, starting 1965, and 150 light tanks. The Indians will supplement their light AMX tanks (163) with a new light tank which they are considering producing in India. The type has not been determined but may be a Vickers light model, to be produced at the rate of 75 per year beginning in 1967-68.

Comment. We advised that we considered some of the Indian armor requirements could be met by foreign procurement rather than domestic production. We also stated that the AMX light tank seemed well suited for Indian needs as it would minimize the problem of a mixed inventory. The Indians did express interest in the M-41 tank although their criterion for a light tank is 15 tons to permit air transport. They were advised that if a decision were made to purchase the M-41, 300 could be made available in FY 1966. We have expressed our concern on the expense involved in tank fabrication in India.

3. Plan-Missiles. The Plan indicates a requirement for a ground-to-ground anti-tank missile and a short-range, mobile, ground-to-air anti-aircraft missile.

Comment. We took the line with the Indian group that these weapons were not required in view of the limited Chinese threat. The Indians indicated that they have not given this question high priority, that they have tried the Vigilant missile and found it wanting.

4. Plan-Bridging. The Plan calls for a lighter bridge for replacement of the folding boat equipment and the Bailey Wet Bridging currently available. The replacement involved was the class 60 Krupp-Mann bridge, with production planned in India.

Comment. The Indians were informed that we did not believe in-country production of bridging was economical. We suggested foreign procurement for this item. The Indians indicated that they would consider dropping this item.

5. Plan-Artillery. The Plan states that the Mountain Gun (3.7-inch and 75mm - USA) will be replaced by the 75mm indigenous gun. The 25 pounder gun is under consideration for replacement by the British 105mm field gun (towed). It was also indicated that a heavy corps artillery piece was required and would be produced in India.

Comment. The Indians confirmed to us that production will start later this year on a 75mm pack howitzer. The question of producing 105mm British gun in India is still an open question.

The Indians indicated that the requirement for corps artillery was a 155mm gun which they hoped to produce, under a licensing agreement, with either the US or Bofors of Sweden, with production to commence in April 1967. We questioned the 155mm gun requirement on the grounds that the 155mm howitzer was a preferred weapon in terms of accuracy, higher trajectory and mobility in mountainous terrain than was the 155mm gun. The Indians disagree, desiring more range.

6. Plan-Mortars. The 3-inch (UK) (81mm(US) and the 4.2 (US) mortars will be replaced by the 81mm (BRANDT) and 120mm mortar (BRANDT) respectively. These will be provided from in-country production beginning July 1964 for the 81mm (1980 tubes) with the 120mm (424 tubes) re-equipment program scheduled for completion in March 1966.

Comment. Our M-1 mortar (81mm) is being phased out as it is too cumbersome for mountain use. We have not been able to make the M-29 model available to India. The Indian requirement is based on the need to have a mortar which can break down into a light pack for mountain warfare. We question the requirement for production of the 81mm and 120mm mortar as the small numbers involved make production uneconomical.

7. Plan-Border Roads. The Plan emphasizes the need to develop the road and rail system in northern India to improve the mobility and logistic support capability of the Indian forces. 5300 miles of new road construction and 2300 miles of road improvement are provided for in the plan. We agree with the desirability of this program, involving some $25 million of foreign exchange.

8. Plan-Vehicles. The Plan states that the standard 3-ton vehicle will be the 4 x 4 Shaktiman and TMB (TaTa Mercedes-Benz). The Plan calls for production of 26,400 from 1964-65

through 1968-69. The one-ton truck will be made in the public sector in a new vehicular factory. This is covered under Defense Production. The main problem is India's plan to proceed with public sector production.

Comment. We have no problem with the 3-ton truck requirement. However, on the Nissan we advised the Indian group that we saw no requirement for building a new vehicle plant when the civil sector was improving and expanding existing facilities.

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III. AIR FORCE REQUIREMENTS

1. Plan Force Levels. There follows a summary of the Indian Air Force requirements set out in the IDP, with the JSOP Levels also indicated:

IAF	JSOP
30 Fighter/Ftr Bmbr Sqdns	11 Tac Ftr Sq (UE 16 a/c)
3 Lt Bmbr Sqdns (Canberra)	3 Ftr Intep Sq (AWX) (UE 14)
10 Transport Sqdns	4 Tac Bmbr Sq (UE 16)
1 Maritime Recce Sqdn	3 Tac Recon Sq (UE 12)
1 Strategic Recce Sqdn	2 Maritime Recon Sq (UE 8)
	* 6 Transport Sq (UE 16) (Med)
	2 Liaison Sq (UE 16)
	4 Helicopter Sq (UE 10)

* - 3 of the 6 sq C-130 or equiv

In addition to the above listed units, the Indian Plan recommends the acquisition of one B-47 squadron and an additional Canberra squadron.

Comment. As with the Army, we considered that it would be unprofitable to engage in detailed arguments as to the Air Force squadron levels. We did indicated, however, that 35 squadrons, including liaison and helicopter units, seemed about adequate in terms of the threat. We also questioned the need for 4 MIG-21 squadrons (90 aircraft) and 8 HF-24 squadrons (192 aircraft) that are set out in the Indian force levels by 1968-69. Our point was that there was no evident military rationale for production of two supersonic aircraft in India. In addition, we also emphasized the cost - both human and financial - in a concurrent production program.

In lieu of proceeding with the production of both HF-24 and the MIGs, we suggested that the HF-24 seemed a worthy possibility to meet Indian supersonic requirements. To this end we stated our willingness to proceed, in conjunction with the British, on a survey to determine if an adequate power plant for the Mark II version of the HF-24 could be found. Further, to meet the immediate three-squadron air defense requirement, we proposed the F-6 as an aircraft quite capable of doing the job. The Indians clearly indicated to us that they considered neither the F-6 nor the F-5 adequate. If they were going to invest in a new aircraft it would definitely be the best available; the F-104.

VAM Arjan Singh indicated that he thinks the US Mach 2 version of the HF-24 has only a 50-50 chance and he is not keen on the MIG-21.

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US Position. That we reiterate our package offer of 72 F-6 aircraft under MAP plus US-UK willingness to survey possibility of supporting a power plant for the HF-24.

2. Plan- Squadron - Divisional Ratio. The Indians, within their proposed squadron force structure, contend that they require 30 fighter-bomber squadrons or about 2 per infantry division.

Comment. We advised the Indians that we did not consider this a valid requirement. In point of fact about half this number appeared adequate, again in terms of the threat.

3. Plan - Gnat-Hawkers. The Indians set forth a requirement for 7 Gnat squadrons and 6 Hawker-Hunter squadrons in the IDP. This will involve in-country production of 136 Gnats and the procurement fo 45 Hawker aircraft.

Comment. The Indians have advised us that the Netherlands was a possible source for the 45 Hawkers that they require. However, there are indications that this requirement might be dropped.

US Position. We are in general agreement with the Gnat/Hawker requirement, depending on other plans.

4. Plan (Toofani-Vampires). The Plan calls for the elimination of the current 7 Vampire and 3 Toofani squadrons from the Indian inventory.

5. Plan (Bombers). The Indian Plan suggests augmentation of their bomber force by one squadron of US B-47s or, alternatively, one squadron of Canberras.

Comment. We recommended to the Indians against acquisition of either the B-47 or Canberra on the grounds of complexity, cost, and lack of justification in terms of the threat. There seems to be little argument here.

6. Plan--Transports. The Indian Plan lists a requirement for 12 transport squadrons (2 AN12, 3 C-119, 3 C-47 (Dakota), 1 IL-14, 1 Caribou, 2 Otter). The Indians propose replacement of the C-47, IL-14 and Otter squadrons. The plan also suggests the possibility of producing the Avro 748 MF or the Caribou in India.

Comment. We question the requirement for replacing the 3 C-47 squadrons, the one IL-14 squadron, and the 2 Otter squadrons. In addition, we believe that the Avro 748, now being produced in India under license (2 have been produced in the past 3 years), will be of little use due to its low useful payload (14,000 pounds) and service ceiling. The Avro 748 MF is still under development in the UK and is too much of an unknown quantity to warrant consideration. The Caribou requirement is valid. We recommended against any in-country production.

7. Plan (Helicopters). The Plan sets a requirement for 20 heavy helicopters and 150 medium helicopters. Further, the Indians are considering manufacture in India of 100 Alouette helicopters.

Comment. We agreed with a total requirement for a combination of 3 squadrons of liaison aircraft/helicopters. We recommend against in-country production of the Alouette. We have also indicated that we are prepared to help meet the helicopter requirement through our credit sales program. The Indians already have had discussions with company representatives on the Chinook helicopter.

8. Plan-- Trainers. The Plan reflects a need for purchase of 96 jet trainers within the next 5 years. Primarily these aircraft are to be the Indian-produced HJT-16 and HF-24 jet trainers. The Indians also have an interim requirement for 50 additional T-6 and 10 C-47 training aircraft.

Comment. We accept the above requirement. We have already provided 22 of the 50 T-6 requirement from US aircraft declared excess by France and have offered to provide in our first tranche of the $10 million FY 64 MAS 4 prototype engines for the HJT-16 trainer.

9. Plan (SAMS) The Plan sets forth the need for surface-to-air guided weapons systems which are being made available by the Soviets.

Comment. The Indians indicated to us that part of the SAM complex would be placed in New Delhi and Calcutta, (2 groups near Delhi and 1 at Calcutta). Further details were not provided. We advised the Indians that the SAMs were a high-cost item which we did not consider of the highest priority.

10. Plan - Electronics and Communications. The need for improved electronic and communication equipment is stressed in the Plan. This includes aircraft electronics; air defense ground environment (essentially the Star Sapphire Project); UHF conversion and Navigation aids and; ECM.

Comment. An analysis of electronic equipment requirements currently is under study in India to determine the extent of Indian production which should be initiated (estimated cost $40 million). Plans are proceeding to initiate electronic components and electronic gear for the MIG, HF-24 and Gnat aircraft ($29 million total; $11 million foreign exchange). We recognize the need for supporting VHF to UHF conversion in MAP-supported aircraft as an immediate requirement. We further indicated that we would support UHF conversion on other IAF aircraft, except Soviet and Satellite-furnished equipment, through either our MAP or credit sales program.

The IAF also recognizes a long-term requirement for unspecified communications and navigation equipment.

We indicated, for the short term, that we would consider UHF support as credit sales. We have proposed $1 million in the FY 64 $10 million credit package.

11. Plan--Airfield Support. The Plan sets forth a general requirement for airfield ancillary equipment costing, over the span of the Plan, about $14 million in foreign exchange.

Comment. We recognize a valid requirement in this area and in our proposed FY 65 MAP have included $1.3 million for 50 refueling units and other airfield equipment.

IV. Naval Requirements

1. Force Levels. The current Indian naval strength and the JCS Force Objectives for India are as follows:

Indian Force	JSOP - 69
1 a/c carrier	1 a/c carrier (CVS)
2 cruisers	1 carrier air group (ASW)
17 DDs/PF	12 destroyers and escorts
6 minesweepers	11 minesweepers
	4 patrol craft
	1 submarine (ASW)
	1 LST/LCT
	1 ASW Patrol Squadron
	1 Search and Recn Squadron

The Plan recommends that the following vessels be obtained either by in-country or foreign procurement:

(1) Construction of three (3) Leander class frigates in India
(2) 6 DDs/PFs procured abroad
(3) 10 minesweepers, foreign procurement
(4) 18 PCs, constructed in India
(5) 2 target submarines, foreign procurement
(6) Skyhawk aircraft, procurement from US for carrier

In addition, the Plan proposes development of a naval facility at Goa on the East Coast and the expansion of current shipbuilding facilities at Bombay.

Comment. The Indians have pressed us on providing assistance to the Navy via the credit sales route. Admiral Nanda has indicated that he has a very serious morale problem in the Navy. He has particularly pressed for DDs and help on the ship repair facility. We have informed the Indians that in the case of DDs the prospects of getting a ship loan bill through the Congress are dim. We have supplied them with cost information on various U.S. constructed or rehabilitated ships, and have indicated the undesirability of the high expense of in-country production. In addition, we have stressed the point that we consider these requirements of lower priority than those for the Army and Fir Force. The Indians have been advised that they should explore the possibility of UK assistance.

On the question of a ship repair facility, we have presented the Indians with a lay-out of plans and a list of equipment for such a representative facility. Again, London may be able to help in this matter.

U.S. Position. Recommend against any implication of support for the Indian Navy, other than our present modest MAP training program.

ECONOMIC IMPLICATIONS OF THE DRAFT FIVE YEAR DEFENSE PLAN

The Defense Plan

The Five-Year Defense Plan (1964/65-1968/69) calls for a total expenditure of $11.9 billion (Table 4). This represents an average defense expenditure of about $2.4 billion during the plan period, more than double that of 1962/63, and almost four times that of 1960/61. Before the emergency, Indian net defense expenditures represented about 2 per cent of GNP and 15 per cent of total government expenditures; under the Defense Plan, these proportions would be around 5.5 per cent and 28 per cent, respectively (Table 1).

The Defense Plan shows a sharp growth of annual defense expenditures to $2.5 billion in 1966/67, with a decline thereafter. There is little ground for assuming a noticeably declining level of expenditures. While the defense buildup accounts for the growth in the earlier years of the Plan, the likelihood of an increased level of recurring costs of operation and maintenance of a larger force must also be taken into account.

Foreign Exchange

The Defense Plan estimates foreign exchange costs at about $1.8 billion for the five years. This would represent an annual foreign exchange requirement of about $360 million. Prior to the Chinese aggression, the GOI spent around $100 million per year for foreign purchases of defense items. In 1963/64 and in the budget for 1964/65, this figure jumped to approximately $200 million.

Since the Defense Plan involves an additional expenditure of foreign exchange (above the approximately $200 million now being spent) of about $150 million annually, unless this can be covered by additional military aid - which is highly unlikely - it in effect asks the donors of economic aid to acquiesce in the additional diversion of this $150 million to defense purposes. Table 2 sets out the differences in U. S. and GOI calculations of the foreign exchange costs of the Indian Defense Plan.

Economic Development Plans

The IDP is overlapped by two of India's economic development plans: the Third Plan (1961-1966) and the Fourth Plan (1966-1971). The Third Plan originally called for total expenditures of $25 billion, with $5.5 billion of foreign exchange, of which about $500 million was for

military purposes. It now appears that the military requirement may reach $800 million. Despite India's own efforts and the high level of foreign assistance which has been given*, more time and more money will be needed to achieve the targets of the Third Plan.

Conclusions

The economic implications of the Plan cannot be precisely defined. To the extent the Plan exceeds the military requirements - and we believe it does - or diverts foreign exchange from developmental purposes - as it would unless India receives much larger military aid contributions - it has an adverse impact on India's development.

If the Draft Defense Plan were implemented as scheduled, the sharp increments in total expenditures during the first two years, especially in defense production, coupled with diversion of scarce resources of some types, would seriously strain the economy. Even if the peaking of expenditures early in the Plan were overcome by stretch-outs, unless the economy attains a growth rate greater than the target rate of 6 per cent, the defense programs will require domestic resource diversions adversely affecting the economy.

The Indian Plan is not in sufficient detail to determine the validity of their cost estimates. It is quite possible that total Indian costs (both in rupee expenditures and foreign exchange) are understated.

Foreign exchange requirements and shortage of skilled manpower are probably the two most limiting factors. India's ability to expand its economy and use foreign aid would be seriously limited by draining off skilled technical and managerial manpower for defense purposes. Accordingly, the Indians need to strike a realistic balance between defense and development, basically keyed to the nature of the threat they face from Communist aggression.

* Total foreign economic assistance, all sources, since 1946 has been approximately $8 billion, of which the U. S. contribution has been about $4.5 billion. Total Consortium contributions to the Third Plan have been $3.4 billion.

70

TABLE 1

INDIA - GROSS NATIONAL PRODUCT, GOVERNMENT EXPENDITURES AND DEFENSE EXPENDITURES, 1960 - 1969

	Actual or Estimated Actual (In current prices)					Projections in Constant 1963/64 Prices					
	1960/61	1961/62	1962/63	1963/64	1964/65	1964/65	1965/66	1966/67	1967/68	1968/69	5-Year Total 1964/65 - 1968/69
Gross National Product (GNP) at Market Prices ($ Millions)	34020	35240	36570	39440	41800	41800	44310	46745	49320	52030	
Percent Change in Real Terms a/	+7.5%	+2.7%	+2.0%	+2.5%	+6.0%	+6.0%	+6.0%	+5.5%	+5.5%	+5.5%	
Per Capita GNP (1962 prices-in Dollars)	80	81	81	83	83	83	-	-	-	-	
Gross Investment as Percent of GNP	17%	16%	17%	17%	18%	18%	-	-	-	-	
Total Central Government Expenditures By Indian Definition ($ Millions)	4077	4708	6197	7718	8616 (Ind. Budget)	8400	8400	8400	8400	8400	42000
Net Defense Expenditure b/ By Indian Definition ($ Millions)	590	656	995	1775 c/	1865 c/	2100	2430	2485	2470	2435	11920
As Percent of Total Govt. Expenditure	14.5%	13.9%	16.1%	23.0%	21.6%	25.0%	28.9%	29.6%	29.4%	29.0%	28.4%
As Percent of Net National Income d/	2.0%	2.1%	3.1%	5.2%	5.2%	5.8%	6.3%	6.2%	5.8%	5.4%	5.9%
As Percent of GNP	1.7%	1.9%	2.7%	4.5%	4.5%	5.1%	5.6%	5.5%	5.2%	4.9%	5.2%
Gross Defense Expenditure ($ Millions)	641	705	1055	1855 c/	1905 c/						
As Percent of GNP	1.9%	2.0%	2.9%	4.7%	4.6%						
Defense Foreign Exchange Expenditure Indian Budgets ($ Millions)	105	77	105	204	198						
5-Year Defense Plan Projections						310	396	407	339	312	1764 e/

a/ The projected rates are optimistic but not unreachable, and are consistent with India planning goals. The low rate from 1961-63 was attributable largely to agriculture, which suffered from bad weather. Emphasis on improved agriculture and stimulation of exports will be necessary to achieve the projected rates of growth.

b/ The Indians use a net concept, which is gross defense expenditure less "recoveries and receipts." U.S. comparisons from one country to another are customarily carried on a gross basis.

c/ Includes allowance for border roads to make these two years comparable to Defense Plan years.

d/ Indians customarily use Net National Income at Factor Cost rather than GNP at Market Prices for evaluating defense expenditures. For India, the GNP is generally 14% to 16% higher than the Net National Income.

e/ Excludes cost of additional air units not covered in Defense Plan tables. AID estimates these at $150 million, thus bringing total to $1,914 million.

Source: AID (NESA/PL) and AID Economic Data Book.

Rupee = 21¢ U.S.
Crore = 10 million
Crore = $2.1 million

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TABLE 2

71

INDIA
Five Year Defense Plan (1964/65-1968/69)
Comparison of U.S.-GOI Estimates of Foreign Exchange Cost

Rupees-Crores (Dollars-Millions)

	Indian Count		U.S. Count	
	Rupees	Dollars	Rupees	Dollars
1. Plan Identified Foreign Exchange Cost	840.0	($1764)	840.0	($1764)
a. Additional Uncosted Air Units 1/	-		70.0	($150)
b. Unidentified Indirect Foreign Exchange Cost 2/	-		-	-
Grand Total forward to be Financed	840.0	($1764)	910.0	($1914)
2. Means of Financing				
a. Continued Foreign Exchange Expenditures as part of GOI Defense Budget	475	($1000) 3/	285	($600) 4/
b. Soviet Union Credits	143	($300)	143	($300)
c. U.S. MAP Grant Aid	143	($300)	120	($250)
d. U.S. MAP Credit Sales	120	($250)	120	($250)
e. U.K. Grant Aid 5/	24	($50)	24	($50)
	905	($1900)	692	($1450)
Less estimated repayments to U.S. and USSR 6/	107	($225)	107	($ 225)
Total Financed 7/	795	($1675)	585	($1225)
Unfinanced Balance (rounded)	45	($100)	325	($700)

1/ F-104G aircraft, the costs for which were not included by the GOI in the Defense Plan.
2/ Impossible to quantify, but $50 million plus possible.
3/ GOI has not explicitly stated this as source of foreign exchange; however, this has been the level of foreign exchange defense expenditures for past two years.
4/ U.S. considers foreign exchange expenditures approximately the pre-1962 level are adequate in light of increased military assistance and probable development needs.
5/ Assistance from Great Britain has not been discussed by the GOI, although an estimate of $50 million over the Plan period seems reasonable.
6/ Repayments to U.S. and USSR for credit sales. Maximum U.S. terms are 3 to 4% for 10 years. While USSR terms are not known, they are estimated at 2% for 10 years.
7/ Mr. Rao has already indicated a willingness to reduce the Plan by $200 million and is considering an additional $200 million reduction, exclusive of the F-104G's. We have increased our level of "reasonableness" by about $200 million. The Indians therefore have come down to $1.7 to $1.5 billion, and the U.S. has gone up to $1.2. Were the GOI to make the maximum cuts considered thus far ($400 million), and drop, for example, their F-104G plans, this would drop defense foreign exchange expenditures to about $1.35, a tolerable level from the U.S. point of view.

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Table 3

INDIA
Balance of Payments Deficits and Coverage, 1960-65

	1960/61	1961/62	1962/63	1963/64	1964/65
	(Millions of Dollars)				
GOI Deficit Covered or to be Covered by Foreign Aid and/or Use of Reserves a/	- 978	- 839	- 961	-1306	-1535
Financed by:					
PL 480 Assistance	388	185	258	384	260
Other Foreign Assistance	504	519	674	918	1063
IMF Drawings (+), Repayments (-)	- 23	122	25	-	-
Use of Reserves	109	13	4	4	-
Gap to be Covered by Additional Aid	-	-	-	-	212

a/ India's overall balance of payments deficits, including visible trade balance, invisibles balance and capital transactions.

(Source: GOI Ministry of Finance)

GOI Gold and Foreign Exchange Holdings					
As of End of Fiscal Year	638	624	620	620 (Feb.'64)	-

(Source: International Monetary Fund)

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1 Rupee = 21¢

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Table 4

73

Indian 5 Year Defence Plan Draft
Memorandum of March 1964

Summary of Total Costs

(In millions of Rupees)

		1964-65	1965-66	1966-67	1967-68	1968-69	5 Years
I.	Army	5860 ($1231)	6180 ($1298)	5960 ($1252)	6200 ($1302)	6040 ($1268)	30240 ($6350)
II.	Air Force	1480 ($ 311)	1665 ($350)	1865 ($392)	2000 ($420)	2000 ($420)	9010 ($1890)
III.	Navy	370 ($78)	500 ($105)	650 ($137)	650 ($137)	660 ($139(	2830 ($595
IV.	Communications including PL routes	490 ($103)	600 ($126)	690 ($145)	640 ($134)	570 ($120)	2990 ($630)
	(Incl. border roads)	(475) ($100)	(589) ($124)	(684) ($144)	(634) ($133)	(560) ($118)	(2942) ($620)
V.	R & D	130 ($27)	220 ($46)	340 ($71)	340 ($71)	340 ($71)	1370 ($290
VI.	Defence Production	500 ($105)	1220 ($256)	1110 ($233)	700 ($147)	740 ($155)	4270 ($895)
VII.	Construction and accommodation	900 ($189)	900 ($189)	950 ($200)	950 ($200)	950 ($200)	4650 ($975)
VIII.	Miscellaneous:						
	(i) Pensions	220 ($46)	250 ($53)	250 ($53)	250 ($53)	250 ($53)	1220 ($255)
	(ii) Others	40 ($8)	40 ($8)	40 ($8)	40 ($8)	40 ($8)	200 ($40)
	Total	9990 ($2098)	11565* ($2429)	11845* ($2487)	11770 ($2472)	11590 ($2434)	56760* ($11920)

* Columns do not add, but these are the figures as shown in the Indian Defence Memorandum.

1965-66 column would add to 11575

1966-67 column would add to 11855

5 Year column would add to 56780

Totals rounded

NESA/PL:EIRipps:ida
May 1, 1964

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75

INDIA - BASIC DATA

I. Population - 464 million (end 1963)

Annual growth rate - 2.4%

II. Area - 1,260,000 square miles

Population Density per square mile - 367

Agricultural land as per cent total area - 53

Per Cent of Population in Agriculture - 70

Life Expectancy - 47 years

People per Doctor - 5,000

III. Literacy Rate - 24%

Pupils as per cent of population - 10% (primary and secondary)

IV. General Fiscal Data	1961	1962	1963	1964 est.
a. GNP (in billion $) (current prices	35.24	36.6	39.44	41.8
b. Per Capita GNP	$81	$81	$83	$83
c. Total Exports	1,402	1,433	1,560	1,615
d. Trade Balance	-701	-855	-1,120	-1,265
e. Gold & Foreign Exchange	662	660	608	N/A
f. Cost of Living Index (1958=100)	108	112	115	N/A

V. Military Structure Data	1961	1962	1963	1964 est.
a. Defense Expenditures as per cent of GNP	1.9%	2.7%	4.5%	4.5%
b. Military Budget ($) (million)	$656	$995	$1,775	$1,865

V. (Continued)

c. Armed Forces Strength - estimate as of 15 April 1964

Army	854,250	15 inf/mtn Divs; 1 Armd Div; 11 Brigs (Armd, Inf, Para)
Navy	18,000	1 CVS, 2 CL, 3 DD, 2 DDE, 6 DE, 6 PF, 7 minesweepers
Air Force	45,500	1490 a/c (332 jet ftr bmbrs; 55 jet bmbrs)
	917,750	

VI. Accumulative MAP Data

Total - FY 63 - $60 million
FY 64 - $50 million

Expected FY 65 Total - $50 million

VII. Data on Other US Assistance Programs

Economic	1946-63
Grants	$369.9 million
Loans	$2,057.6
PL 480	$2,206.7
Gross Total	$4,634.2
Repayment	$ 179.5
Net Total	$4,454.7

VIII. Third Country Economic and Military Assistance

Economic

Consortium (excluding US) 1961-1964 - $2,002 million

International Agencies (1946-63) - $1,196.7 million

Sino-Soviet Bloc - $982 million

VIII. (Continued)

Military Assistance

Grant - UK (62-64)	Sales	Australia	USSR
$74.5 million $14.5 million (committed)	$56,224,000 from FRG, Italy, France, Belgium, Rhodesia, Japan	$4.5 million grant	Sale of 6 MIG-21s assistance for MIG production. 6 more in CY 64 32 AN-12 a/c 40 Mi-4 helicopters SAM SA-2 (8 firing bns.)

[redacted]

FY 1965 MAP - INDIA

The tentative FY 1965 MAP India program is described in detail below. It is emphasized that it is tentative in view of the fact that (a) it is subject to Congressional approval; (b) approval by the Office of the Director of Military Assistance; and (c) will be the subject of further discussions between USMSMI and the Ministry of Defense in New Delhi. It will also be noted that it totals approximately 40 million dollars. This is less than the $50 million guidance because in conferences conducted in the last few days the Government of India representatives indicated that certain areas of support proposed by USMSMI should be delayed and not included in the 1965 program.

Army

1. Continuing Support - This includes follow-on spare parts and training ammunition for 57mm recoilless rifles, 81mm mortars, and 75mm pack howitzers provided for the 8 Mountain Divisions and 2 Corps supported in FY 1963 and FY 1964. Continuing support provided by U.S. for Mountain Division costs $0.281 million per year.

Total $ 2.72 M

2. Training - This includes professional and technical training in U.S. Service Schools, training materials and field exercise ammunition. The training costs amount to $0.11 million and provides 81 training spaces for officers. The cost of field exercise ammunition amounts to $0.27 million.

Total $ 0.47 M

3. Additional Equipment for FY 1963/1964 MAP Supported Units - This includes equipment for modernizing seven (7) Defense Battalions and the 4th Brigade of the 3rd Infantry Division. Items of equipment are also included to meet shortfalls in the units previously supported. Equipment includes AN/GRC-87 and AN/MRC-95 radios, telephones, 57mm recoilless rifles (71); medical and engineer items.

Total $ 4.69 M

[redacted]

4. Modernize One (1) Additional Mountain Division (No. 9) - Equipment includes radios, 57mm recoilless rifles (40) and ammunition; engineer items such as 2 D-7 tractors and portable saws and medical items.

Total $ 0.83 M

5. Modernize One (1) Additional Corps (No. 3) - Equipment includes AN/GRC-87 radios and radio test sets; engineer equipment such as D-7 tractors and 13 motorized graders; medical equipment and maintenance shop equipment.

Total $ 4.11 M

Air Force

1. Continued Aircraft Support - This will provide continuing aircraft ground equipment and follow-on spares for 105 C-47's, 72 C-119's and 9 C-121 aircraft.

Total $ 3.7 M

2. Star Sapphire Radar - This will provide for technical assistance to supervise the installation of radar equipment and it includes test equipment and follow-on spares for the radar system.

Total $ 1.7 M

3. Star Sapphire Communications - This will provide improvement in the communications system provided in FY 1964 by providing essential circuits in the critical Northern India defense area. Test equipment and follow-on spares are also included. Provision of this additional communication will permit the Indian Air Force to communicate with Air Defense control centers, fighter bases and other critical headquarters which are not included in the FY 1964 Star Sapphire program. It will also provide minimum back-up communications for command requirements of the Army and the Air Force. This item will be reviewed in detail to insure the maximum efficient use of the Indian civil communications system.

Total $ 9.4 M

4. Training and Training Equipment - This will include technical training and flight training; $2.7 million was included in FY 1964 and provided training for 273 IAF personnel; $1.5 million is planned for FY 1965. This will provide training for 109 IAF personnel.

Total $ 1.5 M

5. C-119 Class IV Modification - This item is intended to begin a modification program on the C-119 aircraft engines that will give them a longer period between overhauls.

Total $ 1.3 M

6. Refueling Units - This item will provide 50 refueling units to fulfill an overall requirement of 90. Forty units were approved in the FY 1963 program. None were included in the FY 1964 program.

Total $ 1.1 M

7. GCA Units - If the GOI decides to accept recent offer of the UK to provide 4 GCA units, this proposal will be withdrawn for it is not meant to duplicate UK offer.

Total $ 0.8 M

8. C-119 Engine Repair and Rehabilitation - This will provide for overhaul of 96 R-3350-89A engines in the U.S. When a new engine is provided or the existing engine is modified to a new configuration to give it a longer life between overhauls, this type of support will not be needed. This, however, can not be accomplished in FY 1965.

9. Forward Control Radios - These radios (RRQ-4A) will provide voice contact during close support of ground forces by fighter aircraft and during air drop missions in the frontal areas.

Total $ 0.32 M

10. Airfield Equipment - This will provide such items as forklifts, crash/firefighting equipment, and other items as requested by the IAF.

Total $ 0.21 M

Border Roads

1. Continuing Support - This includes follow-on spares for equipment furnished in FY 1963 and FY 1964 and spare parts for U.S. non-MAP supplied construction equipment, such as tractors and road scrapers.

2. New Equipment - This includes various items of construction equipment such as 147 tractors, 19 graders, 4 soil stabilizers, 2 concrete batch plants and 40 band saws.

Total $ 6.11 M

Defense Production

Items included in this area of assistance provides for formal and on-the-job training for selected personnel in the techniques and application of defense production management practices. Engineering studies will be conducted of requirements for machine tools to improve Defense Production Base.

Total $ 1.09 M

Navy

Training - This includes technical and professional training in U.S. schools in such fields as supply, ordnance, shipyard management, medical and command and control of operations. A very limited program for training Indian naval officers was initiated in FY 1964.

Total $ 0.03 M

NOTE: The above is an outline of the tentative Grant Aid Program and does not include any assistance that may be provided through Credit Sales arrangements.

77

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[redacted]

SUMMARY FY 1965 MAJOR EQUIPMENT LIST

The following list of major items of equipment are proposed for the FY 65 MAP for India and are subject to final approval by the Department of Defense following detailed discussions with the Government of India.

ARMY

Item	Quantity	Costs (Estimated)
57mm RCL rifles	111	$ 85,900
Telephone TA-1/PT	242	8,640
Radio, AN/GRC-87	637	707,930
Radio, AN/MRC-95	22	516,655
Boats, bridge erection	23	283,620
Tractor, D-7 size	132	3,300,000
Back hoe, Hyster	68	499,800
Graders, road,mtzd	14	196,000
Evac. Hosp., 400-bed	1	148,000

[redacted]

[redacted]

AIR FORCE

Item	Quantity	Costs (Estimated)
Airframe and engine spare parts for U.S. type aircraft	For 105 C-47s, 72 C-119s, and 9 C-121s.	$ 3.7 M.
Continued support for radars and communications system	Test equipment, technical assistance and follow-on spares, radar simulators	$11.1 M
Airfield/Ground Equipment	Refuelling units - 51 Crash trailors - 14 Fire crash tenders-21	$ 1.31M
Forward control radios, RRQ-4A	50	$ .32M
GCA units, TPN-12	4	$ .08M
Training and training equipment	Air traffic control course. Weather forecasting course Flight training (F-86) Instrument instructor pilot training Flying safety officer course	$ 1.5 M

[redacted]

INDIA MAP
($ in thousands)

Item/Category	Undelivered Balances as of 31 Mar 64 Qty	Undelivered Balances as of 31 Mar 64 Value	FORECAST OF DELIVERIES: 4th Qtr FY 64 Qty	4th Qtr FY 64 Val	FY 65 Qty	FY 65 Val	FY 66 Qty	FY 66 Val
A/C Support Eq & Spares		7,798		1,610		5,012		1,176
Trk Tract & Trlr 5T	40	778			40	778		
Trk Dump 5T	60	692			60	692		
Rifle 57 MM	79	59			79	59		
Mort 81 MM	158	55			158	55		
Howitzer Part 75 MM	184	679	105	553	79	126		
Vehicle Spares		160		160				
Ammunition		3,373		260		3,113		
Elec & Comm Spares		980		195		785		
Misc Elec & Comm Eq		1,424				828		596
AN/TPM-12 Radar	16	1,148					16	1,148
Switchboard SB-22	481	289	346	208	135	81		
Switchboard SB-86	32	103					32	103
AN/MRC-87	1,832	1,941	532	564	744	789	556	589
AN/MRC-95	31	499					31	499
AN/PRC-10 Radio	1,285	480			1,285	480		
AN/FPS Radar	12	2,700					12	2,700
Tropo Scatter Commo Sys		8,000						8,000*
Tractors All Types	256	3,686	106	1,599	150	2,087		
Graders All Types	17	224			17	224		

INDIA MAP
($ in thousands)

Item/Category	Undelivered Balances as of 31 Mar 64 Qty	Undelivered Balances as of 31 Mar 64 Value	FORECAST OF DELIVERIES 4th Qtr FY 64 Qty	4th Qtr FY 64 Val	FY 65 Qty	FY 65 Val	FY 66 Qty	FY 66 Val
Other Misc Const Eq		702		304		398		
Construction Eq Spares		890		356		534		
Other Support Eq & Sup		12,658		2,531		8,860		1,267
Training & Services		3,369		1,237		2,132		
Supply Opns		5,277		2,001		3,276		
TOTAL		57,964		11,578		30,309		16,077

*Funding to be withdrawn pending completion of technical survey.

FY 65 MAP

INDIA

(Tentative Program)

1. Continuing support for Army, Air Force and Border Roads equipment of U.S. origin.
2. Continuing support and improvement in Star Sapphire radar and communications system.
3. Training and/or training equipment for Army, Navy, Air Force and Defense Production officers and specialists.
4. New equipment for the Border Roads Agency.
5. Additional equipment for the Army to include assistance in providing better equipment for an additional corps and maintenance division.
6. Engine rehabilitation and engine modification for the C-119 aircraft.
7. Airfield support equipment.
8. Ground control approach radars (if the GOI does not accept U.K. offer).

84a

OUTLINE

FY 1965 MAP - INDIA

Army

The proposed U.S. Military Assistance Program for the Indian Army for 1965 is as follows:

1. Continuing Support - This includes follow-on spare parts and training ammunition for the 8 Mtn Division and 2 Corps supported in FY 1963 and FY 1964.

2. Training - This includes professional and technical training in U.S. Service Schools, training materials and field exercise ammunition.

3. Additional Equipment for FY 1963/1964 MAP Supported Units - This includes equipment for modernizing seven (7) Defense Battalions and the 4th Brigade of the 3rd Infantry Division. Items of equipment are also included to meet shortfalls in the units previously supported. Equipment includes radios, telephones, 57mm Recoilless Rifles, medical and engineer items.

4. Modernize one (1) additional Mtn Division (No. 9) - Equipment includes radios, 57mm Recoilless Rifles and ammunition; engineer items such as tractors and portable saws and medical items.

5. Modernize one (1) additional Corps (No. 3) - Equipment includes radios and test sets; engineer equipment such as tractors and graders; medical equipment and maintenance shop equipment.

Air Force

The proposed U.S. FY 1965 Military Assistance Program for the Indian Air

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Force is as follows:

1. Continued Aircraft Support - This will provide continuing aircraft ground equipment and follow-on spares for 105 C-47's, 72 C-119's and 9 C-121 aircraft.

2. Star Sapphire Radar - This will provide for technical assistance to supervise the installation of radar equipment and it includes test equipment and follow-on spares for the radar system.

3. Star Sapphire Communications - This will provide improvement in the communications system provided in FY 1964 by providing essential circuits in the critical Northern India Defense area. Test equipment and follow-on spares are also included.

4. Training and Training Equipment - This will include technical training and flight training.

5. C-119 Class IV Modification - This item is intended to begin a modification program on the C-119 aircraft engines that will give them a longer period between overhauls.

6. Refueling Units - This item will provide 50 refueling units to fulfill an overall requirement of 90. Forty units were approved in the FY 1963 program.

7. GCA Units - If the GOI decides to accept recent offer of the U.K. to provide 4 GCA units, this proposal will be withdrawn for it is not meant to duplicate U.K. offer.

8. C-119 Engine Repair and Rehabilitation - This will provide for overhaul of 96 R-3350-89A engines in the U.S. This type of support will be

necessary until such time as a new engine is provided or the existing engine is modified to a new configuration to give it a longer life between overhauls.

9. Forward Control Radios - These radios will provide voice contact during close support of ground forces by fighter aircraft and during air drop missions in the frontal areas.

10. Airfield Equipment - This will provide such items as tugs, forklifts, crash/firefighting equipment, and other items as requested by the IAF.

Border Roads

The proposed program for FY 1965 is as follows:

1. Continuing Support - This includes follow-on spares for equipment furnished in FY 1963 and FY 1964 and spare parts for U.S. non-MAP supplied construction equipment.

2. New Equipment - This includes various items of construction equipment such as tractors, graders, soil stabilizers, concrete batch plants and band saws.

Defense Production

The proposed program for FY 1965 is as follows:

Formal and on the job training for selected personnel in the techniques and application of defense production management practices. Engineering studies of requirements for machine tools to improve Defense Production Base.

Navy

The proposed program for FY 1965 is as follows:

Training - This includes technical and professional training in U.S. schools in such fields as supply, ordnance, shipyard management, medical and command and control of operations.

NOTE: The above is an outline of the tentative Grant Aid Program and does not include any assistance that may be provided through Credit Sales arrangements.

86

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THIRD COUNTRY AID TO INDIA

Background: Prior to the Chinese Communist aggression against India in October 1962, India had been procuring its military equipment from a number of sources. As far as is known, all items were obtained under some type of sales agreement. The primary purveyor was the United Kingdom; with the Soviet Union selling many items, principally MIG aircraft. While shopping in all market places has permitted India to display its neutralist status, it has created significant problems of a logistical nature, through a lack of uniformity of equipments.

In November 1962, India appealed on an urgent basis to all nations it considered likely to respond for military equipment and supplies to help stem the CHICOM onslaught. In addition to the US contribution and those of the British Commonwealth, which were of significant proportion, other nations agreed to deliver smaller quantities of assistance. While the US and the Commonwealth's contribution were outright grants, some countries are being reimbursed either in rupees or hard currency. In the case of the FRG, however, provision of 10,000 winter uniforms was made on a grant basis.

Major Item Deliveries: The attached table lists, by country, the major item contributions, completed and contemplated, the value (where known) and the type of assistance, grant or sales.

Projected Aid: The best information available as to plans of third countries for military assistance to India indicates that the Commonwealth nations will respond with very modest grant programs. Other nations, including the Soviet Union and its satellites, undoubtedly will sell to India specific items which it might wish to purchase. The projected programs which are known are as follows:

Australia: Further aid will be provided, primarily in the defense production area. While no new appropriation for FY 1964/65 has been made by the GOA, it is probable that one will be forthcoming prior to 1 July. In addition to providing technical assistance and training in the defense production area, Australia will probably respond to specific requests from India, of a modest nature for items of military hardware.

United Kingdom: In our talks with the UK in London, 25-26 March, the UK decided to go forward with an additional $14 million of further military assistance to India which will probably be spread over the next few years from the point of view of expenditures and deliveries. The specific items for this program are now under consideration and are expected to be discussed with Chavan during his visit to London following the US visit. This is an addition to the initial UK Nassau aid of $53.2 million and the post Nassau, or so called Birch Grove, aid of $21.3 million. The British have decided to provide assistance to India on a year-to-year basis but not to assist India in its defense production because of the adverse impact on Pakistan.

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The major elements of the additional $14 million includes:

a. 4 Hunter T.66 A/C
b. IFF - Balance of Phase I
c. 240 Aden 30mm Guns
d. 10-12 Fire and Crash Tenders
e. 15,000 3 inch Rockets
f. 30,000 - Sterling SMG
g. 500 - Trucks, 1 Ton APGP
h. Jet Provost Trainers, Ground Equipment and Spares

Canada: While Canada has no specific follow on program planned for India, it indicated that it would be receptive to considering any projects that it might be uniquely qualified to provide.

FRG: There is a possibility that the FRG might be able to make a contribution to some phase of the IJ3/61 jet engines now being developed in the UK for FRG use, if this engine is feasible for adaptation to the HF-24 airframe. The FRG, however, has not yet been consulted on this matter.

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COUNTRY	MAJOR ITEMS	Value ($ Thous)	Type of Assistance
AUSTRALIA			
	3000 FN 7.62mm Rifle		Grant
	500 FN 7.62mm LMGs		"
	50000 .303 Rifles		"
	Ammunition		"
	Blankets & Clothing	3,000.	"
	Other Unspecified Items	1,500.	"
BELGIUM			
	FN 7.62 Rifles	697.	Hard Currency Sale
CANADA			
	30 Caribou Aircraft		Grant
	36 Harvard Trainer Aircraft		"
	8 Dakota Aircraft		"
	Winter Clothing		"
FRANCE			
	24 120mm Mortar & Ammo)	(9,000.)	Probable Sale
	13 AMX Tanks & Ammo)		
	3 Caravelle Commercial Acft		
	33 Alouette Helicopters Acft		
	Spares & Engines		
	68mm Rockets & Pods	31,526.	Hard Currency Sale
ITALY			
	20 105mm Mountain Guns	463.	Largely hard Currency Purchase
	2000 Blankets		
JAPAN			
	2000 1-T Trucks	5,000.	
RHODESIA			
	Electrolytic Copper	2,800.	Deferred Installment hard currency payment
NETHERLANDS			
	10 F-27 Transport Aircraft		

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COUNTRY	MAJOR ITEMS	VALUE ($ THOUS)	TYPE OF ASSISTANCE
NEW ZEALAND			
	2000 Blankets 15 Tons Butter		Grant
SWITZERLAND			
	20 mm HSS Aircraft Cannon		Sale
UNITED KINGDOM			
	L1A1 FN Rifles - 100,000 .303 Rifles - 60,000 L4A3 FN LMG - 6,000 Sterling SMG - 36,000 25 Pounders - 24 75mm Pack Howitzers - 21 4.2 mortars - 32 Ferrets - 20 Rockets MK5 - 1,000 Submarine - 1 Aircraft Guns Signal Equipment Bridging Equipment Medical Equipment Ammunition Aircraft Parts	53,000	Grant
USSR			
	MIG-21 Aircraft - 6 (6 more in CY 64 AN-12 Aircraft - 32 Mi-4 Helicopter - 40 SAM SA-2 - 8 Firing Bns, 2 Tech Bns, other Bns due date CY 64; ITRG BN (in country) 12 Add's firing Bns & 3 add'l tech bns are under neogitation, if contracted, delivery in CY 65. SNAR-2 Radars - 2 AAM for MIG-21 - 12 (est)		
	MIG-21 Factory (possible) SAM & AAM Manufacturing Rights (Under discussion)		Rupees Sales Leading to

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COUNTRY	MAJOR ITEMS	VALUE ($ THOUS)	TYPE OF ASSISTANCE
WEST GERMANY			
	120mm Mortars, 120mm Ammo (Mfd. in Israel)	5,288	Largely hard currency purchase,
	Winter Clothing	1,250	except winter
	22 Harvard Trainers (Possibly 28 more when available)	200	clothing which was Grant

COORDINATION:
DIA (Mr. Fonda)
NESA Region (Col Miller)

Prepared by:
Col. Elliott T. Katherman
OASD/ISA/ODMA
Assistant for Coordination
28 April 1964

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87

MILITARY ASSISTANCE SALES PROGRAM

Background:

Neither in this nor future years can the USG supply India's total valid equipment requirements through grant aid alone. During 1963 the GOI spent over $126 million in foreign exchange expenditures in third countries. Of this amount less than 2% (7% according to Mr. Rao) was for purchases in the U.S. and Canada. Items procured abroad by the GOI are listed in Appendix III.

The GOI has estimated foreign exchange expenditures of about $360 million annually for defense purchases during the period 1964-69. USG hopes to get GOI to reduce this to a $210 annual level.

U.S. Objectives:

Extend to the GOI Defense Department credits to supplement our grant aid MAP to India. In discussions with the advanced GOI party Mr. Kuss indicated that the USG

(a) was prepared to extend immediately a $10 million line of credit from its FY-64 funds, and

(b) consider the possibility of extending additional military assistance sales credits for FY-65 and subsequent years in the area of $30 to $50 million annually

provided these credits are used by the GOI in consonance with the USG's four principal objectives:

1. Allow the purchase of items which would save India's budgetary funds where U.S. production purchase was more economic.

2. Allow a deferment of current foreign exchange expenditures so that the high foreign exchange allocation planned by India for next year might be spread out over a longer period of time.

3. Allow purchases of high priority needs which cannot be included within the Military Assistance Grant Aid Program.

4. Allow purchases by India of U.S. products to a larger extent than has been experienced in the past.

Present Status of USG-GOI Negotiations:

Based on last weeks discussions a Memorandum of Understanding has been prepared for signature by USG and GOI representatives (See Appendix I). This Memorandum of Understanding will commit both parties to the $10 million MAS credit sales program for FY-64. The USG has included in the Memorandum of Understending six sales items for which credit assistance will be extended for FY-64. After several discussions the GOI agreed with the USG position that the most immediate need was for modernization of defense plants since this approach would result in the most effective use of the credit in terms of cost and time. Furthermore, the USG stated its preference for a broader mix of sales items under the MAS credit program with greater emphasis on complete military end items.

Appendix II contains background information concerning the six items included in the Memorandum of Understanding.

Appendix III contains a list of items to be considered for possible sale to the GOI in future credit programs (FY-65-69).

3 Appendices

Prepared by: Peter E. Feigl
OASD/ISA/ILN
19 May 1964

MEMORANDUM OF UNDERSTANDING

The Minister of Defence of India, Mr. Y. B. Chavan, and the Secretary of Defense of the United States, Mr. Robert S. McNamara, having considered the mutual interests of both countries in India's maintaining a strong defensive position against Communist China and a sound developing economy, discussed certain credit assistance which might be provided by the United States under exchanges of notes which became effective on March 15, 1951, December 17, 1958, and November 14, 1962, to supplement and complement the grant aid provided by the United States for India's Armed Forces.

The Secretary of Defense of the United States indicated that normal arrangements for military credit sales involve repayments within 5 to 7 years and interest rates of about 5%. In the interest of achieving mutual objectives the Secretary of Defense indicated he would seek to provide defense articles and services for India's defense effort on terms of repayment within 10 years and interest at rates of 3% per annum on the unpaid balance.

Both participants agreed on the following:

The United States will immediately provide credit assistance in the amount of $10 million for the following items on general terms of 10% to be paid by India with order and the balance to be paid by India in installments over a period of 10 years with interest on the unpaid balance at the rate of 3% per annum:

INCL. 1

	Estimated Amounts Millions
1. Defense Production Items for modernization of ordnance factories such as:	$5.0
a. Cordite Factory - ARAVANKADU b. High Explosive Factory - KIRKEE c. Ordnance Factory - KANPUR d. Metal and Steel Factory - ISHAPORE e. Rifle Factory - ISHAPORE f. Gun and Shell Factory - COSSIPORE g. Small Arms Factory - KANPUR	
2. Materials Handling Equipment for the KIRKEE and KHAMARIA Factories, the JUBBALPORE Gun Carriage Factory and the ISHAPORE Rifle Factory	1.0
3. Engine CJ-610-1 (J-85 series) for HJT Jet Trainer (4 prototype engines)	0.25
4. 1-Ton Trucks in knocked down condition for assembly in India (approximately 1,300 trucks)	3.25
5. Machine Tools and Sub-systems for production of HF-24 MK 1	1.0
6. Ground Sets for UHF Communications Equipment (6 ACSW stations, 20 airbase control towers, 4 CCA units, and maintenance float)	1.0
7. Engineering Study for Ambajhari Plant	0.15
TOTAL	$11.65

The foregoing list is subject to change by mutual agreement.

The Indian Defence Representatives in conjunction with U.S. Defense Representatives (Chief, United States Military Supply Mission to India) will prepare a list of additional defense requirements which meet agreed objectives. This list will be prepared on the basis of agreed priorities and in separate tranches of $10 million each. The Secretary of Defense will then give consideration to the extension by the U.S. to the Government of India of additional

credit beyond the $10 million tranche provided by this memorandum.

Following discussion of implementation arrangements, the Secretary of Defense and the Minister of Defence agreed that detailed financial and procurement procedures to carry out this program would be worked out by their representatives at a special meeting to take place in the immediate future. They made special note that such procedures would take into account the following points:

1. The Indian Defence Ministry desires the U.S. military services to provide procurement services as a part of this mutual supply agreement.

2. The Indian Defence Ministry desires where practical to review contract prices and related terms prior to final contracting by the U.S. military services.

3. Prices charged by the U.S. Government will be based on actual contractor prices for items being procured, the U.S. standard price for items being furnished from stocks and on the value of services provided. To the extent possible, items will be supplied from surplus inventories at surplus prices.

4. Repayment schedules will be based on equal annual repayments of principal plus interest calculated on the unpaid balance from the time of actual fund disbursements to suppliers for programs or delivery payments.

_____ _____

_____ _____

(Date) (Date)

1. Defense Production Items for Modernization of Existing Factories $5.0 M

The GOI's first priority for U.S. assistance is in the field of defense production. The GOI has requested assistance in modernizing at least 7 of their older factories manufacturing high explosives, rifles, small arms and cordite.

USG has agreed that the total modernization program, which may total some $30 million in foreign exchange expenditures, is of a high priority and will result in the most direct and immediate benefits. The USG proposes allocating $5 million from the FY 64 credit line for this modernization program. Detailed list of machinery to be supplied will be based on an engineering survey and review of surplus tools in USG inventory.

2. MATERIAL HANDLING EQUIPMENT for the KIRKEE and KHAMARIA Factories, the JUBBALPORE Gun Carriage Factory and the ISHAPORE Rifle Factory $1.0M

The Government of India has formally requested assistance in the supply of Material Handling Equipment and technical assistance. The request totals 1100 pieces of material handling equipment consisting of railway cranes, switch engines, dump trucks, belt conveyors, roller conveyors, hand push carts, pallets, pallet racks, fork lifts, tow motors, trailers, rail track realignment and garages for housing equipment. The total estimated cost for supply of the equipment and technical assistance is $3 million. The U.S. has not given an answer to the formal request.

The GOI operates a complex of 24 Ordnance Factories in which are manufactured a wide range of munitions. The majority of these plants are of old construction and do not adapt themselves to modern, mass production methods. This factor, taken together with the technical ineptitude of the GOI in the field of material handling and manufacturing process flow, limits the productivity to a substantial degree. It was recognized that a need exists in this area for assistance and action was taken to include in the MAP FY 65 program funds to have a study made to determine and evaluate the requirement for material handling equipment and provide training in material handling principles and procedures to the GOI. The GOI has the capacity to absorb the training and equipment over a 2 to 3 year period time frame. The supply of the

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~~APPENDIX~~ II

equipment to be effective must be predicated upon the results of expert evaluation. The advantage of equipment supply and technical training in this field will result in substantial increases in productivity and concomitant cost savings. This type of equipment is especially adaptable to a military credit sales arrangement as they are predominantly commercial in nature. It is felt that the accomplishment of this project over a three year span would provide the best approach, with training and some equipment supply coming in the first year. An estimated $1,000,000 for credit sales in FY-64 would provide about 400 pieces of equipment. Exact items will be determined after a study by experts.

3. Engine CJ-610-1 (J-85 Series) for HJT-16 Jet Trainer (4 Prototype Engines) $ 0.25 M

The GOI formally requested 100 each CJ-610 engines be provided for use in the HJT-16 aircraft which is now under development for eventual use in the IAF undergraduate pilot training program. Four engines are needed as soon as possible for the HJT-16 prototypes. The HJT-16 will replace obsolete Harvard (T-6) trainers which should be phased out earliest due to critical shortages of spares and to give the IAF a modern jet trainer. The CJ-610 engine is currently being produced by the General Electric Company in the U.S. and by its Canadian licensee.

We recommend that four U.S. built CJ-610 engines be included in the FY 1964 military credit sales program at a total cost of $250,000.

4. Truck Components for assembly of 1-Ton Trucks (approximately 1,000 sets) $ 3.4 M

The Government of India has requested 7,000 1-Ton vehicles with a sales value of $23,100,000. The procurement of 1-ton vehicle components under this program is required to supplement the GOI in-country production of vehicles, in order to modernize their inventory at a more rapid pace. The total requirement for this type vehicle, to cover unit entitlements and reserves, is 34,000 vehicles. The current inventory is 21,495 vehicles, of which 13,287 are of pre-1948 manufacture, and are difficult to support logistically and maintain. Without assistance or procurement in this area, these obsolete vehicles will not be completely phased out until the end of 1969. In-country production of these trucks for the period 1964-69 is forecast at 20,000 1-ton Nissan Carriers and 9,900 Dodge Power Wagons, with a total inventory of 33,800 after attrition projected for the end of this period. The procurement of these components for assembly of vehicles will also permit the GOI to discard 1,000 vehicles which are over 16 years old.

5. Machine Tools and Sub-Systems for Production of HF-24 MK 1 Aircraft — $ 1.0 M

The GOI has requested assistance from the U.S. to increase the rate of production of the HF-24 MK 1 aircraft from 3 to 6 per month. The physical plant is being expanded, however, the tools and equipment needed to increase the production rate are not available in country. If production is to be increased, additional sub-systems such as instruments, hydraulic brakes, etc., will be required. The GOI estimates that $4.09 is needed. It is proposed that we offer the GOI credit of $1 million to initiate this program. Increased production of the HF-24 will enable the GOI to phase obsolete aircraft from the IAF inventory out at a faster rate.

6. UHF Equipment — $ 1.0 M

The GOI has stated its intention of adopting in the near future UHF ground-to-air and air-to-ground communications. Present VHF and LF systems are limited in range due to the mountainous terrain in the north of India. Total cost for ground stations and retrofitting existing aircraft is estimated at $8 million. Though portions of this program may be provided MAP during FY 65 and 66, it is proposed that $1 million be funded under the current FY 64 MAS credit to provide for the first phase consisting of the necessary ground environment equipment.

Engineering Survey $ 0.15M

The scope of the engineering study of the Ambajhari Engineering Factory is:

a. To prepare a detailed statement of the physical plant and production equipment required to produce the stated quantity of end items and insure that production equipment is balanced for most economical and efficient production.

b. To determine the quantity of useable production equipment available from U.S. excess stocks which can be incorporated into the individual shops of the factory.

c. To prepare a detailed plant layout to achieve the most efficient flow of materials.

d. To develop a cost estimate for individual items of production equipment showing possible equipment sources and procurement lead time.

e. To recommend methods and equipment required, with estimate of cost, for adequate quality assurance and control.

f. To develop the program for economical movement and/or handling of raw materials, components and finished product, including materials handling equipment and program controls required.

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GOI orders for defense items and materials for FY 63/64 (Indian Fiscal Year, 1 April - 31 March) through 30 November 1963, are as follows: (Latest available information)

		(Million)	Probably can be supplied from US
France	120 mm and 75 mm ammo	$ 8.4	Yes
UK	30 mm ammunition	1.2	Yes
France	Rockets and rocket pods	3.2	Yes
Sweden	L-70 gun components	1.1	No
Switzerland	L-70 radar components	5.4	No
France	Helicopters (Alouette) w/spares	3.1	No
UK/Canada	Aircraft spares	16.4	No
France	Aircraft spares	15.6	No
UK	Avro 748 aircraft	1.1	No
Hindustan Aircraft, Ltd.	HF-24 spares, etc.	3.9	No
France	AMX-13 tanks	1.9	Yes
Japan	Vehicle components (NISSAN)	6.9	No
France	Vehicle and tank spares	2.2	No
Unknown	Raw materials, Ordnance factory	17.5	Yes
Unknown	Balancing Plant for Ordnance factories	11.3	Yes
Unknown	Tank factory equipment	4.4	Yes
UK	Communications equipment components and other items	4.2	Yes
Netherlands	Wireless sets, copper wire	1.6	Yes

~~TAB A~~
INCL.
~~APPENDIX~~ III

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Canada	Signal equipment	1.7	Yes
Unknown	Engineer equipment	0.3	Yes
Italy	Animals	1.7	No
Unknown	Naval equipment spares	6.4	No
Unknown	Miscellaneous	5.8	Yes
	TOTAL (Million)	$126.3	

DEFENSE PRODUCTION
(Other than Aircraft and Ships)

1. Foreign Exchange Expenditures for Defense Production. Foreign exchange costs for the capital investment foreseen in the 5-year Plan for defense production, excluding aircraft and ships, is estimated at 108 crores (about $227 million). The heaviest emphasis (about 85 crores or $178 million) is on the production of armaments and ammunition. The remaining major categories are fighting vehicles and transport (about 16 crores or $34 million) and electronics equipment (about 5 crores or $11 million).

2. Armaments and Ammunition. The plan contains production schedules designed to meet most of the Indian requirements for artillery weapons, tank guns and smaller arms by 1970-71. It also envisages enough plant capacity to meet about 40% of the war wastage rates for ammunition; this capacity will also build up reserve stocks during peacetime. The war wastage rates are generally about, or less than, US rates. Tab 1 shows the armament requirements and production schedules through 1970-71. The detailed annual production plans for ammunition through 1968-69 are set forth in pp. 58-80 of the Indian Plan.

3. Plant Capabilities. Current Indian armament production is principally based on the following plants: a cordite factory at Aravenkadu; a high explosive factory at Kirkee; an ordnance factory at Kanpur; a metal and steel factory at Ishapore; a rifle factory at Ishapore; a gun and shell factory at Cossipore; and a small arms factory at Kanpure. In the late winter of 1963, a group of US Government ordnance experts, headed by Mr. Carrol Staley, made a survey of these plants. The Staley Report disclosed the following deficiencies: the plant equipment was old and deteriorating; there was a lack of supporting industries (common hardware); production and management techniques were largely derived from the British and did not exploit fully the plants' potential; and limitations on foreign exchange expenditures led to inefficient use of indigenous resources. The Staley Report made recommendations on each of these deficiencies. In addition, a new small arms ammunition factory was begun at Varagaon; the equipment for this plant came from the St. Louis plant that had been declared surplus to US needs.

4. Priorities. The Indian 5-year plan envisages both new factories (Tab 2) and the modernization of existing factories (Tab 3). During our discussions, the Indians established priorities within the 5-year plan. The first is for a new factory (Phase I) at Ambajhari in central India, which would increase overall production capacity for light and medium ammunition from 30% to 40% of wartime wastage rates. The foreign

exchange cost for this plan is estimated at about 12 crores or $25 million - a reduction of over one crore of the foreign exchange expenditure originally foreseen under the plan (13.37 crores). The second priority is for the improvement and modernization of existing production capabilities, for which foreign exchange costs are estimated at about 15 crores or $32 million - a reduction of 2 crores from the 16.95 crores of foreign exchange originally estimated in the plan. While the Indians plan on completing this modernization program over a 5-year period, it is our view that the sooner it is done the better, so as to take greater advantage of existing plant capacity.

Our preliminary discussions led to an agreement in principle that $5-6 million of credit-sales in FY 64 and additional sums in FY 65 should be used to finance the modernization program. The Ambajhari plant would be financed through credit-sales in FY 65 with the possibility of some portions of this amount coming from FY 66. (A complete engineering study is needed for the Ambajhari plant before specific items of equipment can be selected.) We are urgently screening US stocks to see whether they contain items that could meet the needs at Ambajhari and for the modernization program. Where such stocks are surplus, they would be provided under grant assistance.

There is one additional plant on which the Indians plan to go further now. This is the filling factory at Chanda which would tie in directly with the Ambajhari plant and for which the Indians are looking to the UK for foreign exchange financing. The Indians stated during our discussions that they plan to defer going forward with any of the additional plants shown in the 5-year plan until they have a clearer picture of how their production capacities will be increased through the modernization program.

5. Tanks. The Indians are planning to complete a tank plant at Avadi, which is 70% complete and which will produce 100 medium tanks a year. This plant will also be used to produce light tanks. The Indians plan to produce a Vickers medium tank but have not selected the type of light tank. We have suggested that they could buy reconditioned M-41 tanks which would cost about $50,000 or $70,000 each, depending upon the model, and could be delivered in 24 months. The Indians are studying our proposal although they doubt that the M-41 can meet their needs, which they consider as calling for a tank not over 15 tons. The Indian light tank requirements (200) are insufficient to start production in the US of the AMX-13 light tank.

6. Vehicles. The Indians plan to establish a Government truck factory which would have an annual capacity of about 6,000 Shaktiman and 7,200 Nisan one-ton trucks, as well as maintenance spares. This limited production would be uneconomical, and we have suggested that the Indians either purchase from a third country or expand the existing civil sector production. This problem is further complicated in that AID currently has under consideration loans aggregating $34.7 million to two companies in the civil sector to improve their truck production, and AID has been counting on these companies sharing in defense production.

7. Electronics. The Indians are surveying their defense-civil sector needs for electronics equipment (Bhabha Committee) before deciding on a definitive electronics production program. In the interim, they plan to improve existing government plants to make those electronic components that are now being assembled in India, and to manufacture the electronic equipment that will be needed for Indian-produced aircraft. A survey by A.D. Little for the Indian Government recommended against the development of a separate electronics production capability except in two fields: (1) ground radar and microwave communication equipment, and (2) airborne equipment. While the Indians reportedly have the capability to assemble components, they have only a limited base on which to build a manufacturing program.

8. Radios. The Indian Government has before it a proposal by RCA, calling for the delivery of 1,000 completed sets and the subsequent delivery of components, for assembly in India, of the AN-PRC 25, a transistorized man-packed radio. We have not yet seen the need to offer credit financing for this arrangement.

9. Miscellaneous. The 5-year plan calls for the manufacture of modern bridging equipment (Krupp Mann) for the Army. The Indians are considering our suggestion that, as an alternative, they buy our M4-T6.

94a

AIR DEFENSE REQUIREMENTS

1. The IAF has been developing a capability for air-ground operations. The Hunter and Gnat are good aircraft to operate in support of the Army, interdict lines of communications and attack enemy aircraft in the battlefield area. These aircraft are not very good for the air defense task because of relatively slow climb and armament. The main requirement, and we consider the most pressing one for the Indian Air Force, is the early attainment of an air defense capability.

2. The IAF problem is, therefore, one of:

a. Establishing an effective and alert radar system.

b. Developing the skill to maintain and operate the radar.

c. Perfecting the tactics between controller and pilot for effective intercepts.

d. Early interceptor defense capability of the two metropolitan areas of Calcutta and Delhi.

3. We should therefore, if the subject is brought up, advance the position that:

a. The main threat to Calcutta is about 50 IL-28's, and we don't see much change for the next few years.

b. Six radar sites need to be brought to a high state of readiness regardless of the aircraft used for air defense.

c. Relatively large numbers of aircraft are fundamental to air defense environment because of relatively low kill per attack (about .25) and the need for compensation of errors.

d. The IAF should seek the least sophisticated weapon that will give a reasonable return on the effort.

e. Three squadrons is about the minimum force for India's air defense task.

f. Three F-104 squadrons of 72 aircraft would cost approximately 150M or 6 times the cost of an equal number of F-6A (26M).

g. For the most likely raid against Calcutta and Delhi, 2 squadrons of F-104G would have the same kill potential as 3 squadrons of F-6A's at approximately 4 times the cost.

h. Under the worst form of an attack (a bomber stream of individual aircraft spaced at 5 mile intervals with 15 bombers to each target), three squadrons of F-104G's would kill approximately 70% of the raid while the same number of F-6A would kill about 53%. The cost for an increase of 17% in kill probability is roughly 125 Million Dollars.

96/

AIRCRAFT CHARACTERISTICS

Indian Fighter Aircraft	Max. Speeds (Clean) Sea Level Knots	Opt. Alt. Mach	Time to Climb Minutes	Ceiling $1\frac{1}{2}$G	Ceiling Combat	Max Radius Int Fuel	Max Radius Ext Fuel	Armament Air to Air	Remarks
Toofani	502	.82	13 to 40,000 ft	39,100	44,100	267	350	4 x 20 mm	Ground support only.
Vampire NF .10	456	.78	21 to 30,000 ft	31,000	33,000	150	280	4 x 20 mm	1950 Vintage A/C with WW II radar; very limited night/ all-wx capability.
Mystere IVA	605	.94	15.5 to 40,000 ft	37,000	45,000	190	385	2 x 30 mm	Slow rate of climb A/C for ground support as primary mission.
Hunter 56	510	.95	9.5 to 45,000 ft	41,000	49,200	210	410	4 x 30 mm	Versatile A/C being used for day ftr/ ground support.
Gnat 1	590	.97	6.5 to 45,000 ft	42,000	51,000	200	370	2 x 30 mm	Primary day fighter.
HF 24 MK I		.98							This model flying.
NEW AIRCRAFT HF 24 MKIA	Mach 1.4 (est)			HF 24 MKII		Mach 2.0 (goal)			These models not flown yet.
U.S. FIGHTER AIRCRAFT F-4	627	.98	3.9 to 30,000 ft	45,000	52,100	200	370	4 x 20 mm 2 x GAR-8 38 2.75 FFAR	All wx A/C with 20 mm Sidewinders only good in clear air.
F-5A	635	1.37	3.5 to 30,000 ft	45,000 (est)	51,000	205	475	2 x 20 mm 2 x Side-winder	Clear air mass fighter-bomber.
F-104G	[illegible]	2.0	3.2 to 30,000 ft	45,000 (est)	50,000	257	639	1 x 20 mm 2 x GAR-8 38 2.75 FFAR	All wx A/C with guns; Sidewinders only good in clear air.

97

CHICOM AIRCRAFT	Max Speed Knots	Mach	Time to Climb Minutes	Ceiling 1½G	Ceiling Combat	Max Radius Int Fuel	Max Radius Ext Fuel	Armament Air to Air	Remarks
MIG-15	582	.92		52,700		330	570	1 x 37 mm. 2 x 23 mm.	A clear air mass interceptor.
MIG-17	620	.95	3.0 to 40,000 ft		54,500		510	2 x 23 mm. 1 x 37 mm.	A clear air mass interceptor.
MIG-19A	660	1.27		55,000		300	520	1 x 37 mm. 2 x 23 mm.	A clear air mass interceptor.
MIG-21	660	2.0	2.6 to 40,000 ft		60,000		540	2 x 30 mm. 2 x AAM's (est)	A clear air mass interceptor.

TYPE	Max speed at Combat Ceiling	Range with Bomb Load	Remarks
IL-28 (Beagle)	Mach .70 at 48,500	610 NM with 4400-6600#	Medium range bomber (all weather)

PAKISTANI AIRCRAFT									
F-104 A/B	680	2.0	4.6 to 30,000 ft	45,000 (est)	49,500	156	339	2 x GAR-8 1 x M61 cannon	A clear mass interceptor.
F-86F	600	.92	8.0 to 35,000 ft	n/a	42,000	250	500	2 x GAR-8 4 x 50 cal. 16 x 5" HVAR	Day fighter.
B-57 (Canberra) (India owns British produced Canberra)	Mach .67 at 45,500			650 NM with 8260#					Medium range bomber (when all weather, radar bombsight modification completed)

COMPARISON OF U.S. AIRCRAFT

	F-104G	F-5A	F-6A
1. MAX SPEED (CLEAN)			
SEA LEVEL KTS	750	635	627
OPT. ALT. MACH	2.0	1.37	.98
2. TIME TO CLIMB TO OPT. ALT. (IN MIN.)	3.2 to 30,000	3.5 to 30,000	3.9 to 30,000
3. 1½ G CEILING	45,000	45,000	45,000
4. COMBAT CEILING (500 FPM)	50,000	51,000	52,100
5. MAX RADIUS AIR-TO AIR MISSION AT ALT.			
INTERNAL FUEL ONLY	257	205	200
EXTERNAL	639	475	370
6. AIR-TO-AIR ARM.	1-20 MM GUN 2 SIDEWINDER 38 2.75 FFAR ROCKETS	2-20 MM GUN 2 SIDEWINDER	4-20 MM GUN 2 SIDEWINDER 38 2.75 FFAR ROCKETS
7. AIRBORNE INTERCEPT.	LTD AWX	---	LTD AWX
CAP. (NIGHT & WX)	GUNS & CLEAR MISSILE ONLY	CLEAR ONLY	ALL EXCEPT SIDEWINDER
8. MAINTENANCE HOURS PER FLYING HOUR	43:1	20:1	18.5:1
9. COMPARATIVE COST (72 A/C)	149.9	81.2	25.3

100

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101

Availability -- F-5, F-6A, F-104G Aircraft

F-5 Aircraft - The current MAP production of F-5 Aircraft are allocated for delivery to countries as follows:

	Qtr	Del. Date
Iran	13	End Jan. 1965
	13	End Dec. 1965
Korea	21	End Nov. 1965
	12	End Jul. 1965
Greece	20	End May 1965
	17	End Jan. 1966
Phillippines	9	End Aug. 1965
Rep. of China	9	End Aug. 1965
Norway	11	End Fe. 1966
Turkey	21	End Nov. 1965

Above countries have been advised on delivery dates of aircraft. Training is being accomplished to meet these dates. In some countries new construction has been started in order to house training equipment. To adjust above deliveries would cause many problems. One squadron of F-5 Aircraft could be provided each year to India beginning with funding in FY 65 with delivery by end 3rd qtr FY 66 at the current planned MAP production rate of 10 Aircraft per month. With increased production authorizations, delivery of aircraft could begin 6 months from date of contract go-ahead. This is possible since earlier production rate was planned at 12 per month and long lead time production items were provisioned accordingly. Selection of Indian personnel and phasing into U.S. training schools may add additional three months.

F-6A Aircraft

Navy advises that availability of F-6A Aircraft are as follows:

40 Aircraft - now reserved for MAP, immediately available.

Approximately 135 - 160 additional aircraft are carried in storage for Navy mobilization assignments units. These aircraft can be made available for MAP if directed by the Secretary of Defense.

F-104G Aircraft

The current MAP production of F-104G Aircraft are allocated to MAP countries with the last delivery being made by the end of 1965. Lockheed in the past few days has informed Air Vice Marshal Singh in writing that they could deliver the 2-seater TF-104 model at any time after go-ahead. The first F-104G would be delivered in 8 months, 20 between the 12th and 13th month and a full packet of 72 aircraft within 19 months.

103

Prospective Development of the Indian HF-24 Fighter

The HF-24 is a twin-jet fighter, designed at the Hindustan Aircraft Ltd factory at Bangalore, by the German Professor Kurt Tank with a team of 120 men, of whom 12 are Germans. In October 1963 the first HF-24, equipped with a British Orpheus 703 turbojet engine with an after burner, underwent flight tests. Since then, six aircraft have been observed in various stages of production.

The Indians apparently intend to develop the HF-24 to the Mach 2.0 class. There are reports that the prototype tested in 1963 had been flight tested at Mach 1.2 with the British Orpheus BOr-3 engine. During negotiations to purchase Soviet RD9F engines for this aircraft, the Indians were informed that the desired Mach 2.0 capability could not be guaranteed. Nevertheless, the contract was signed for these engines based on a Mach 1.4 capability. Subsequent cancellation of the bulk of the order suggests that the Indians are seeking a higher-performance engine. Detailed characteristics and performance have not yet been determined.

The Indian Defense Production Minister stated on April 28 that the Mach 2 engine for the HF-24 had not yet been selected. India apparently is still exploring Soviet help for a Mach 2 engine for the HF-24 and reportedly has furnished the USSR with the desired specifications. The Soviets appear reluctant to undertake this project; they have informed the Indians that there is no engine available which meets these specifications. The Indians, however, have been asked to submit this request on a government-to-government basis for further Soviet consideration. Recent reports indicate that India is also exploring the possibility of a joint effort with the UAR, where German technicians are developing the E-300 jet engine; under such an arrangement airframe modifications could be adapted for use of the UAR engine. Apparently motivated partly by a desire to preserve Indian-UAR political relationships, Defense Minister Chavan has indicated that this avenue will be thoroughly explored before US or UK help will be sought.

India's modernization program envisages extensive development of the HF-24 with a planned production of about 192 aircraft in the next five years.

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HF-24 Mark II Engine Assistance, US/UK

I. Background

The Government of India has had under development since 1959 a Hindustani fighter, HF-24. The Mark II version has an objective a model capable of Mach 2 speeds. Its development has been slow because of the lack of a suitable engine. During US/UK talks in London in March 1964, the possibility of adapting the Rolls-Royce engine (RB-153/61) to the HF-24 was explored with the British and was determined to be a distinct possibility. This engine is being built in the UK for the FRG. The subject was broached to the GOI in the context of expressing our interest in jointly (US/UK) helping them to acquire an engine which will meet their objective for the HF-24 Mark II. Assistance in this field along with the offer of the F-6A was considered an extremely good package to offer the Indians during the present visit. Airframe drawings were requested of the GOI to permit a preliminary determination of the feasibility of adaption of the Rolls-Royce engine to the HF-24. If this proved potentially sound, the next step would be detailed examination of the technicalities involved in India at the HAL plant.

II. Current Status

At the present time, in spite of US pressure to expedite positive action on the matter prior to Minister Chavan's visit, no definitive action has been accomplished. The essential airframe drawings have not been produced as yet. The subject was brought up with Secretary Rao during discussions on 16 May. Rao expressed interest, expressed surprise that the airframe plans had not been forwarded, and stated that he would take up the engine matter with the British during his forthcoming visit to London.

III. U.S. Position

The subject of technical assistance on the engine for the HF-24 Mark II remains a matter of interest to the U.S. Should the matter come up, we should emphasize that we and the UK are prepared to help on the Mark II, HF-24 but are unable to do so until the Indians request our support, to include execution of a "in-country" technical survey.

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STAR SAPPHIRE

Project STAR SAPPHIRE involves the provision of equipment for six fixed radar sites and a supporting communications system. The radar equipment will be delivered as scheduled, with equipment for the first site arriving in India in August 1964. Equipment for the remaining five sites will arrive at ensuing monthly intervals.

Engineering of the supporting communications system was completed in December 1964. However, further action was suspended pending a STATE/AID Inspector General Agency (IGA) investigation of possible duplication between the proposed military communications system and an India civil communications system being procured through a World Bank financed loan.

The IGA reported that a possible duplication did exist and recommended a further military evaluation of the communications requirement. CINCSTRIKE sent a military survey team to India in late April 1964. The findings and recommendations of the team were submitted by CINCSTRIKE to the Joint Chiefs of Staff on 15 May 1964. Comments and recommendations of the Joint Chiefs should be available within the next several days.

SECRET

INDIAN POLITICAL SITUATION

Defense Minister Chavan comes to the United States at a time of transition and readjustment in India. With Prime Minister Nehru in the twilight of his career, all important political activity is now undertaken with an eye to the succession struggle. In addition, a series of external pressures and domestic problems have come to a head during this difficult period of leadership transition. On the external side, India is under pressure from both Communist China and Pakistan. On the domestic side, the economic slowdown, and conflict between Hindus and Muslims, have created severe difficulties for the government. By a process of interaction and cumulative effect, all of these problems have become further aggravated. Consequently, something of a crisis of confidence has developed in India concerning the country's ability to cope with its manifold pressures and problems. This has tended to throw Indian leaders off balance. It has also magnified chauvanistic tendencies.

While Minister without Portfolio, Lal Bahadur Shastri, the spokesman and candidate of the "moderate" faction has emerged as the frontrunner in the succession race, his candidacy has become affected by the gamble inherent in the decision to release the Kashmir leader, Sheikh Abdullah, from jail. Extremists on both the right (led by Morarji Desai) and on the left (led by Krishna Menon) are challenging Shastri's policy of accommodation with Abdullah, who has questioned India's position on Kashmir. They have also challenged Shastri's policy of negotiations with Pakistan on communal problems. As a result of these challenges, the Government has been placed on the defensive and its freedom of action has become restricted.

In the inflamed political atmosphere in India following the Chinese Communist attack in 1962 and the subsequent escalation of tensions with Pakistan, the nature of India's defense effort has become a major issue among the factions contending for supremacy in the post-Nehru period. Defense Minister Chavan's political future may depend upon the extent to which he is able to build India's defenses. While Chavan is himself not an active candidate in the succession struggle at this stage, and has not committed himself to any of the major factions, he could be a decisive factor because of his powerful political following in his home state, Maharashtra--one of the largest and most important in India.

On the international side, the situation prevailing in India for some months following the Chinese Communist attack, wherein the United States and Britain were considered to be the sole reliable sources of defense assistance no longer obtains. The heating up of Indo-Pakistan tensions and reactivation of the Kashmir dispute, combined with the aggravation of the Sino-Soviet split, has helped the Soviets to recoup their

position in India to a significant degree. Over the past year, the Soviets have become a supplier of military assistance to India on a scale of considerable magnitude. Moreover, coming at a crucial psychological moment, the recent Soviet decision to finance the Bokaro steel project, after the United States had decided not to support it, may have an exaggerated psychological impact in the present atmosphere in India and enhance Soviet leverage on the wide range of key issues which now hang in the balance.

In conclusion, it is clear from the foregoing that the present time is a crucial one from the viewpoint of United States relations with India in the defense field, and from the viewpoint of longer range United States influence on India's policies and political evolution.

[redacted]

101

INDIA

Yashwantrao Balwantrao CHAVAN

Minister of Defense

OFFICE OF CENTRAL REFERENCE

BIOGRAPHIC REGISTER

(1963)

To replace the controversial V.K. Krishna Menon, who was forced out as Minister of Defense on 1 November 1962, Prime Minister Nehru reached into the ranks of the state government of Maharashtra and appointed on 14 November 1962 the Chief Minister, Y.B. Chavan. Always extremely popular in his home state, he still remains the dominant political personality there. As Chief Minister of first Bombay and then (after the linguistic division of that state in 1960) of Maharashtra, he developed a reputation as a man of great political ability.

[redacted]

As Chief Minister of Maharashtra, Chavan was highly competent. Dominating his cabinet but respected by it, he rid the state Congress Party of factionalism (as much as is ever possible in India) and engineered a remarkable election victory for the party in 1962. He supported Menon is this election but claims he did so because of party loyalty. Publicly Chavan is a Nehru-type socialist and has sought to identify himself with the "center" or even "left of center" section of the Congress Party. He mentions his humble origins as reason for a genuine concern for Indian development to alleviate the differences between the rich and poor. [redacted] On occasions Chavan has cooperated with the private sector, but he favors public sector development of basic industry. Politically Chavan appears to have a deep attachment to democracy and a high regard for the United States, but he has expressed disappointment with the US's Kashmir policy.

[redacted]

[redacted]

Yashwantrao Balwantrao CHAVAN (cont.)

[redacted] The cabinet reshuffle of October 1963 which shifted T.T. Krishnamachari from the abolished position of Minister of Defense and Economic Coordination to Finance Minister gave Chavan more control over defense matters. Chavan's activity during his first year as Defense Minister indicates he is also deliberately confining himself to department administration and seeking to avoid the entanglements of Delhi intrigues.

A Hindu of the Marathi caste, Y.B. Chavan was born 12 March 1914 in Devrashtre, Satara District, Bombay. His parents were penniless peasant farmers. An uncle took care of him after his father died and helped him to get an education. He graduated from the Rajaram College in Kolhapur in 1938 and took his LL.B. degree from the Law College at Poona in 1941. During this time he participated in the Civil Disobedience Movement and was imprisoned in 1932 (for 18 months) and in 1943. Chavan was strongly influenced by M.N. Roy, an anti-Stalinist Marxist, but disassociated himself from Roy in 1939 on the issue of the Second World War (Chavan favored the Nationalistic enthusiasm for ousting the British from India). He retains however, a good grasp of Marxist doctrine and terminology. Chavan has been a member of the Maharashtra Congress Committee since 1940, serving as secretary from 1948 to 1950. Elected to the Bombay Legislative Assembly in 1946, Chavan was appointed parliamentary secretary to the Minister in charge of Home and Revenue and served until 1951. Re-elected to the Bombay Legislative Assembly in 1951-52, he was appointed (first) Minister for Civil Supplies and Local Self-Government and (later) Minister for Local Self-Government and Forests. He became Chief Minister of Bombay when the state of Bombay was reorganized in 1956. After the 1957 elections he was unanimously re-elected leader of the Congress Party in the Bombay Legislature and reappointed Chief Minister, holding this position until appointed Chief Minister of Maharashtra in May 1960. In February 1963 Chavan was elected to the Rajya Sabha (upper house of Parliament) and named its leader the following August.

A voracious reader Chavan is keenly interested in such topics as history of the American Revolution, early civilization and American politics; his reading has included Profiles in Courage, The Affluent Society, The Uncertain Trumpet and The Making of a President.

[redacted] In addition to his native tongue Marathi, Chavan speaks Hindi. Although Chavan has never been outside of India, he also speaks English,

[redacted]

[redacted]

[redacted]

[redacted]

6 December 1963

[redacted]

Indian MAP
X Bowles
109

New Delhi - May 11, 1964.

[redacted]

Dear Bob:

I am a bit confused by your letter of April 24, and can only assume that the various messages in regard to the Indian five year military plan, high performance aircraft and other questions had not yet reached your desk or that you had not had an opportunity to read them.

1. In regard to the size of the defense plan I think we have done about everything possible in this situation and, by and large, I feel that our efforts have been extremely effective. The memorandum which I sent to Nehru was circulated to all members of the Cabinet and appears to have been generally accepted as a basis of procedure by all elements of the government with the exception of the Defense Ministry.

Although the Indian military are no more likely to accept the overriding need for economic development than our own Air Force people would be inclined to substitute an expanded program in Appalachia for more missiles, Chavan himself, I believe, has become aware, however reluctantly, that the projected five year military build up is unrealistic and so have most of his Civil Service staff. (See Embtel 3328, for example).

Although there will undoubtedly be more discussion on this subject during the Chavan visit, I think you and Mac should urge everyone to bear in mind that the final decision is not going to be made by General Chaudhuri, Arjan Singh or even by Chavan but rather by the Prime Minister, the Finance Minister, Shastri and others who I now think understand the economic realities quite well.

Mr. Robert Komer,
The White House,
Washington, D.C.

[redacted]

2. In your letter you say "We here have seen nothing firm about whether you have ever even tried out the original package (U.S. high performance aircraft and HF-24 development) on the Indians". I did not try out the package because I was not given the authority to do so in spite of several requests. In Deptel 2016 on April 5 it was stated that "aircraft types will not be discussed with the GOI in New Delhi". It was not until April 11 (Deptel 2060) that I even received authority to discuss the possibility of HF-24 development which I proceeded to do the following day.

However, General Adams and various members of our military staff became convinced through some highly tentative feelers with GOI defense authorities that the F6A program would be extremely hard to sell unless we went into numbers far beyond the 75 planes which we had discussed in Washington. Indeed, General Adams was convinced that only if we moved to two squadrons of F-104s delivered at a reasonably early date plus a willingness to help out substantially in regard to HF-24's (Mach 2), with the further understanding that we would provide an assembly line for F-104s if the HF-24 failed, would we be able to maintain an effective position in regard to the Indian Air Force.

Although I have continued to believe that there is still some chance that the F6A might be acceptable on the grounds that it can be procured more quickly and in much greater quantity, I agree with General Adams that the odds are not good--particularly in view of the fact that the presentation of the Lockheed representatives here (whose visits were authorized by both Pentagon and State) convinced the Indians that when the chips are down we are prepared to come through with the F-104s.

In regard to HF-24 Mark II production, the Indians, in Chavan's words, would welcome our willingness to help if we had been forthcoming 60 days ago but at this stage they are giving first priority to the UAR's German experts. Again, I don't despair on this question (provided we are really outgoing with the Chavan Mission), particularly since early reports on the Rolls Royce engine appear somewhat promising.

3. The attached memorandum from Col. Jordan may serve as a reminder of our efforts to avoid the situation which we now fear. If circumstances had enabled us to say in January or even February what we seem to be prepared to say now, we could have largely dealt the Soviets out of the situation in regard to sophisticated weapons.

As I pointed out in President Kennedy's office in late April 1963, it is totally wrong for us (or our Pakistan friends) in discussing military defense with the Indians to assume that we can hold down Indian military defense program by postponing decisions and refusing to help them do what they feel needs to be done. The Indians have three options besides the United States--the development of their own production facilities, the use of their own foreign exchange to buy equipment in Europe, and the Communist bloc. In regard to the first two of these we have been able to exert some leverage because of our AID program--although if our pressures are too insensitive, the Indians will turn us down at whatever cost to themselves.

However, we can exercise very little leverage in regard to procurement from the USSR. The Communist bloc association, as I have been saying for a very long time (sometimes with a feeling that, with the exception of you and one or two others, I was talking into a vacuum), is a major and increasing alternative. Witness the major Soviet aid which started in June 1963 in the face of our general assumption that it should not be considered a real possibility; witness the new MIG-21 plant; witness the massive Soviet aid for Bokaro; witness the Soviet SAMs; witness the most recent announcement that Czechoslovakia will assist in Indian defense production.

We have seen the Indian delegation off from New Delhi in what I believe to be an extremely friendly and basically realistic mood and with, I believe, the clear understanding, in their minds at least, that the Finance Ministry and the Government will not support them in any outsize expenditures of foreign exchange.

I will be in Washington on the 23rd and will look forward to seeing you shortly thereafter. Let me say again, if it needs saying,

that you have been our greatest source of understanding and support, and this is deeply appreciated.

With my warmest regards,

Sincerely,

Chester Bowles

P.S. Although the amoebic dysentery which hit me hard in mid-April (at the very time that General Adams, the Investors Mission and Orville Freeman were visiting here) now seems to be cleared up, Dr. Beahler tells me that it is the kind of thing which often returns and I am planning a thorough checkup in the United States.

110

7 May 1964

MEMORANDUM FOR MR. KOMER

Attached is JCS document JCSM 361-64 **, dated** 1 May 1964 **, which may be of interest to you. As Mr. Bundy directed on 19 November, please read this document for "background only," in the sense in which the press understands that term. Any compromise of source could dry up this potentially useful channel of information overnight.**

Please return the attached document to Smith, Room ~~376A~~ 387 **EOB, in a sealed envelope, not later than** 13 May 1964 **.**

W. Y. SMITH

Attachment
a/s

~~SECRET~~

111 Korea

THE JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20301

JCSM-361-64
1 May 1964

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: Indian Five Year Plan (U)

1. Reference is made to a memorandum by the Deputy Assistant Secretary of Defense (ISA), dated 30 March 1964, requesting the views of the Joint Chiefs of Staff on the Indian Five Year Defense Plan (1964-69).

2. It is apparent that the Indian Five Year Plan has not been developed in accordance with the guidelines furnished the US Country Team pursuant to NSAM 279. These guidelines were based upon the recommendations of the Chairman, Joint Chiefs of Staff, which were made on his return from New Delhi to the Secretary of Defense and were subsequently approved by the President in NSAM 279. The Indian Defense Plan in its present form is a requirements plan developed by Indian officials to meet unstated objectives in response to unevaluated threats. By implication, it would appear that the threat for which India is seeking forces comprises both the possibility of a large CHICOM attack and simultaneous conflict with Pakistan. The force goals for the Army, the Navy, and the Air Force are clearly excessive when considered in relation to the kind of limited CHICOM threat which the Joint Chiefs of Staff regard as reasonable.

3. The rupee and foreign exchange requirements established in the plan far exceed that which can be afforded for military purposes. During the visit of the Chairman, Joint Chiefs of Staff, to India in December, Indian officials stated that the annual expenditure of foreign exchange on defense at that time was about $250 million and that despite the need, it had to be reduced. They hoped as a result of increased defense production to be able to hold foreign exchange required for defense to about one-half that amount. In this connection, in conversations as late as 23 April 1964, T. T. Krishnamachri, the Indian Finance Minister, indicated to Ambassador Bowles that he had not read the Chavan memorandum on the Defense Plan and, furthermore, he agreed that if our estimate on foreign exchange requirements were correct, India could not afford it and the money would not be made available. It is evident, therefore, that the foreign exchange requirements in the present plan (over $336 million annually) are excessive to those which key Indian officials themselves consider supportable.

Copy 1 of 21 Copies each
of 3 pages series "B"

~~SECRET~~

DOWNGRADED AT 12 YEAR INTERVALS; NOT AUTOMATICALLY DECLASSIFIED. DOD DIR 5200.10

4. In view of the foregoing, and because the plan has not been developed as a capabilities plan as outlined in paragraph 4 of CM-1089-63 and supported by the Joint Chiefs of Staff in JCSM-15-64, they consider that the Indian Five Year Defense Plan, as now drafted, does not provide a suitable basis for specific action. Comments on points requiring special emphasis, as requested in the referenced memorandum, are contained in the Appendix hereto.

5. The Joint Chiefs of Staff accordingly would recommend against discussing specifics of the current plan with Indian officials before reaching a thorough understanding on the political and economic bases for Indian military planning. In particular, they would be opposed to the discussion in isolation of items such as the following:

a. Moving ahead with selected items for defense production.

b. The provision of high performance aircraft.

c. Piecemeal implementation of the plan.

6. The Joint Chiefs of Staff recommend that:

a. The Indian Five Year Plan, in its present form, be treated only as a draft to serve as a basis for generalized discussion and clarification with Defense Minister Chavan on the occasion of his visit to the United States in May.

b. The over-all objectives of the discussion with Minister Chavan be to obtain agreement to recast the Five Year Plan as a capabilities plan with force goals in realistic relationship to likely resources and with Indian coordination at government level.

c. The discussions with Minister Chavan seek to develop answers to such questions as the following:

(1) What is the military threat which the Government of India seeks to counter with its national military forces?

(2) How large a rupee budget and what amount of foreign exchange can be allocated to this purpose without detriment to the economic program?

(3) What military grant aid is anticipated from third countries other than the United States?

(4) What purchases of military equipment from third countries are contemplated in the program?

(5) How large an Indian armament industry is being planned and what would be the effect on the civil economy?

d. No commitments be made or implied beyond generalised discussions of FY 1965 military assistance to India.

e. In order to facilitate the discussion of the Indian Five Year Plan with Minister Chavan, Presidential authority be sought to permit giving illustrative figures for possible future US military aid to the Indian officials.

For the Joint Chiefs of Staff:

SIGNED

MAXWELL D. TAYLOR
Chairman
Joint Chiefs of Staff

Attachment

111a

APPENDIX

COMMENTS ON POINTS REQUIRING SPECIAL EMPHASIS

1. The Validity of the Force Goals Established for All Services in Terms of the Threat

a. The difference between Indian force goals and those approved by the Joint Chiefs of Staff in JSOP-69 arises from fundamental differences in concept as to the nature of the threat and means of meeting it. The Indians believe that they must be capable of withstanding the maximum attack which the Chinese are logistically capable of supporting, and take into account the threat of possible simultaneous Pakistani and Chinese aggression. The Joint Chief of Staff consider that Indian force goals should be calculated against the contingency of limited Chinese attacks with reliance on collective action by Free World forces in the event of large scale attack. The United States, of course, minimizes the threat of Pakistani aggression. This difference in concept is implicit in the Indian plan, and was made clear by T. T. Krishnamachari in his conversation* with Ambassador Bowles on 26 March 1964.

b. The Plan indicates a ground force structure goal of 23 equivalent divisions. This would probably include 405,000 combatant troops. An evaluation of the units itemized plus other elements in existence not currently included in the Plan point to a prospective total Indian combat personnel strength of approximately 564,000. This is in contrast with an estimated maximum Chinese communist incursion of 270,000 advancing concurrently from the north and through Burma.** It also contrasts with a Pakistani

* New Delhi msg 2836 to State, 26 Mar 64
** Logistics limitations would preclude a Chinese penetration of Indian territory beyond Kashmir in the West and the Upper Brahmaputra River Valley area in the East.

combat personnel strength of about 128,000. The plan thus not only exceeds the requirement to combat the Chinese-Pakistani ground threat identified by the Indians, but also far exceeds the requirement to combat the Chinese ground threat as identified by the United States.

c. It should be noted that the proposals of the Chairman, Joint Chiefs of Staff, on the next steps in military assistance to India and Pakistan were designed to avoid arguments over force goals, per se. Instead the plan was to encourage the Indians to make their own decisions on force goals within a suitable political framework and in consonance with a reasonable estimate of resources available.

2. The Validity of the Weapons Mix Enumerated in the Plan

a. As with force goals, some of the weapons selections in the plan have been influenced by India's view of the threat. However, even if this view were accepted, the selection of weapons appears to have been made without regard to availabilities or cost effectiveness.

b. In the Army, the requirements for production of 120 mm mortars and for medium and light tanks are excessive, as are the requirements for war reserve. However, the indicated program of standardization is commendable.

c. The Air Force standardization plan is also commendable. However, some of this effect is lost in desires to acquire the B-47 and in plans to initiate production of the MIG-21 and the HF-24. In this regard the following comments are pertinent:

(1) The B-47 should receive no serious consideration for two reasons. First, the demands of this weapon system in terms of maintenance, manpower and expense are so enormous that, even technologically advanced countries

have serious doubts regard the desirability of its acquisition. Second, the provision of the B-47 to India would probably be considered sufficient reason for Pakistan to withdraw from its Western Alliances and to terminate US rights at Peshawar.

(2) The requirement for additional fighter aircraft, in the numbers indicated, is just not justified by the threat. Further, the United States should attempt to avoid the introduction of additional MIG-21s into the Indian Air Force because of the Soviet infiltration that may result. In addition, production of these aircraft is redundant in that it duplicates expense of plant, facilities and acquisition of raw material as well as taxing India's ability to supply the necessary technical skill and foreign exchange.

(3) Production in India of either the Avro 748 or the military version now under development in the UK is not warranted due to low payload per ton mile. Even with its limited STOL capability it would not add significantly to the forward airlift capability.

(4) The production of the Alouette helicopter in India appears to be unrealistic. The usefulness of the Alouette in the Himalayas is severely restricted by the high terrain and the service ceiling (12-14000 ft). Therefore, it appears that, in lieu of 150, a more conservative requirement for 40-50 helicopters would be more in order. To establish a manufacturing capability, in country, for this number of aircraft is not considered practical.

d. The Navy requirement for Skyhawk aircraft is not consistent with the ASW mission. The only submarine requirement endorsed by the Joint Chiefs of Staff is a single fleet type submarine for ASW training purposes to be supplied by the UK.

3. The Ability of India to Implement the In-country Defense Production Programs Envisaged. Implementation of these programs will depend on considerable external assistance both in foreign exchange and technical assistance in the managerial field. The plans indicates only capital costs of the program, and considerable additional costs will be entailed in procuring raw materials and components abroad, and from the domestic civil production sector. These added costs could run foreign exchange requirements as much as $100 million annually above the requirement indicated in the plan. The lack of managerial ability, as indicated in the difficulties encountered at the Varangaon ammunition factory, is a key element. Successful implementation of the plan can be achieved only by transfers of qualified personnel from the civil sector or by importing managerial talent from abroad. In any event managerial problems will also contribute to increased costs. In sum, the total program would cost considerably more than indicated in the plan and have a serious impact on the economic development plan through diversion of foreign exchange and domestic material and personnel resources.

4. Whether There are any Deficiencies in Military Planning Procedures and Methods Revealed by a Study of the Plan. The Indian five-year defense plan should be the culmination of a series of studies which would have related national security policy, military missions and tasks, national resources available, cost effectiveness of various weapons systems, unit equipping programs, etc. That some such studies have been made is indicated in the plan itself and in presentations made by Indian officials in Washington in April and July of 1963.

However, it is doubtful that the Indian military have the capability to produce such studies in the depth which is normal to US planning. Without access to all supporting studies, it is not possible to comment in detail as to specific steps which should be taken by the Indians to improve planning procedures and techniques. In general, however, it appears that the following major deficiencies may exist:

a. The programs of the three Services appear to have been developed independently instead of with reference to an agreed joint strategic objectives plan.

b. The current five-year plan represents a claim against national resources, including external assistance, rather than a considered evaluation of a national strategy based on a realistic estimate of resources that are available. Thus, for example, proposed defense expenditures are justified on the basis that other countries spend a like percentage of the GNP, without regard to whether India's economic position warrants this level of expenditure.

c. The cost effectiveness of various alternatives does not appear to have been considered in any depth.

5. The Military Implications of the Plan on Our Pakistani Relationships. The United States has argued that withdrawal of US military assistance to India could be employed, as necessary, to curtail Indian aggressiveness. Pakistan has maintained that the Indians would use United States aid to attain a position of self-sufficiency after which US ability to influence Indian behavior would be minimal. The Indian five-year defense plan bears out Pakistan's contention with respect to US military assistance required to support the 1969 Indian force structure. Of course, other measures are open

to the United States to influence Indian behavior in coming years. Nevertheless, full US support for this plan, the scope of which will probably become known to Pakistan, would seriously endanger US-Pakistani relations. This deleterious effect could be heightened by US reluctance to engage in discussion of long term military assistance to Pakistan.

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112

THE JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20301

CM-1343-64
30 APR 1964

India map
Pak map

MEMORANDUM FOR MR. R. W. KOMER

In reply to your memorandum of 21 April, let me offer the following general observations which outline the basic JCS rationale in developing MAP programs for India and Pakistan.

The long-range objective seen by the Chiefs to be in the US interest is the strengthening of the subcontinent as a bulwark against further Communist expansion into Southeast Asia and South Asia. India and Pakistan, reconciled to each other's existence, and each possessing reasonable military strength, a sound economic base, and a recognition of the other's problems, are necessary elements for the achievement of this purpose.

The goals for our Military Assistance Programs for India and Pakistan are derived from the foregoing and are basically the same, namely, to enable the two countries to maintain a military capability consistent with the threat to their security and in accord with US strategy. In the case of India, the immediate goal is to strengthen India's capacity to defend against renewed ChiCom aggression on her national borders. Accordingly, while not suggesting that India should have the capability to "go it alone," US efforts have been aimed at assisting India to expand her forces to meet a realistic estimate of the ChiCom threat and to develop a sound and supportable defense production effort. In this connection, an Indian defense expansion plan which coordinates military, defense production, and domestic requirements is an urgent need. The plan recently formulated, although a step in this direction, has not, we understand, been coordinated at Indian governmental level and looks to us excessive to the defensive needs and fiscal means of India.

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In the case of Pakistan, the immediate goals are to support forces that will afford Pakistan a sense of security and permit the continued participation by Pakistan in regional collective security arrangements. In more specific terms, the objective is to create a military establishment capable of maintaining internal security, of coping effectively against attacks short of large-scale conflict, of contributing to area collective security, and of providing limited forces for possible collective security operations outside of Pakistan.

In light of the above, I do not see that there is any essential disagreement within the government regarding our goals for both India and Pakistan. There are, of course, major questions as to tactics of negotiation which will have to be dealt with in the day-to-day dealings with both countries. These should present no insoluble problems.

MAXWELL D. TAYLOR
Chairman
Joint Chiefs of Staff

113

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[redacted]

April 3, 1964

India MAP

MEMORANDUM FOR AMBASSADOR BOWLES

Subject: Comparative Defense Costs

Attached is a brief table showing defense costs in ten other countries. Five of these are almost entirely dependent upon their MAP for the foreign exchange component of their defense.

I believe you will find this table useful on two counts.

Most important, it indicates the tremendous burden to India of its effort to become broadly self-sufficient in the defense field. The Indian defense budget of $1.7 billion equals that of South Korea, Taiwan, Pakistan, Turkey, and Greece combined, including the MAP they receive. The total strength of the armed forces of these countries is double that of India. In other words, the Indian defense buildup, including both military assistance and domestic resources, is roughly twice as expensive as for our LDC allies.

Secondly, this table indicates why we believe a foreign exchange availability of approximately $210 million should be sufficient.

James P. Grant

Attachment:

Table.

JPGrant:hw

[redacted]

GROUP 3
Downgraded at 12 year intervals; not automatically declassified

[redacted]

COUNTRY	TOTAL ARMED FORCES	TOTAL [redacted] (millions)	MAP [redacted] (millions)	DOMESTIC [redacted] (millions)
South Korea	550,000+	$311	$144	$137
Taiwan	500,000+	$330	$132	$198
Pakistan	250,000	$221 (nearest)	$ 46 (nearest)	$156
Turkey	450,000	$140	$173	$218
Greece	160,000	$270	$ 80	$190
Israel		$137		
Italy	470,000	$1,600		
U.K.	445,000	$5,000		
Germany	500,000	$4,308		
Canada	124,000	$1,674		

[redacted]

114

SECRET

April 2, 1964

TO: Ambassador Bowles

FROM: NEA - James P. Grant

SUBJECT: Indian Five-Year Defense Plan

With receipt of the GOI Ministry of Defense's draft Five-Year Plan, we now have, as you have said repeatedly in Washington, a useful starting point with the Indians. Secretary McNamara's responsiveness on the air defense package and his instruction to McNaughton and Solbert that "we need to get on with the military assistance program" means that we have a base from which to conduct serious discussions and negotiations with the Indians over the next several months.

One immediate question is what size Indian five-year defense plan we would consider to be "in the ball-park" in terms of the economic/military balance. If the MOD's draft plan is too large, as we all agree, it would be useful to have some other general dimension in mind. This question of over-all dimension might then be discussed with TTK before his Finance Ministry completes its review of the defense plan so that it appears that he, rather than we, cuts it down to some point of reasonable balance with development needs. We then can focus our leverage with Indian Defense officials on the raft of other questions and problems that remain.

What is a reasonable (or maximum) financial dimension of a "satisfactory" defense plan?

The pre-Chinese-Communist attack defense budget was at the level of approximately $800 million annually, including a foreign exchange expenditure averaging something less than $100 million annually.

In the eighteen months since the ChiCom invasion, the Indian defense budget has more than doubled. It is now in the $1.6-$1.8 billion range. The foreign exchange expenditure requirement also has more than doubled (GOI in its 1963-64 fiscal year budget had a free foreign exchange allocation for defense of some $190 million plus military assistance from the U.S. and U.K.).

The Ministry of Defense draft plan calls for an average annual expenditure of approximately $2.4 billion over the five-year period. This is the equivalent of approximately 6½ percent of Indian national income. Over the five-year period the foreign exchange requirement would average some $340 million annually, including some $60 million annually under the "rupee" payment provision with the USSR.

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The draft Indian plan therefore calls for an increase of more than one-third in the level of expenditures. TTK almost certainly will find this is excessive. We should tell him informally of our preliminary reaction that any expenditures level over five percent of gross national income clearly would be excessive. Indian defense expenditures should not go up over the proportion of national income of this and the last fiscal year and the identifiable foreign resource requirements, including those met through military assistance, should not average more than a hundred crores ($210 million) annually for the five-year period. This level, just under 5 percent of national income, would call for a reduction of nearly 20 percent in the Defense Ministry's projected expenditures over the five years and a reduction of approximately one-third in the foreign exchange requirements.

You should also point out to TTK that USG has a major interest in holding to a minimum the indirect, as well as direct, foreign exchange cost of the defense effort. Expenditures for such items as the imported crude used for producing military POL apparently are not included in the foreign exchange cost estimates of the five-year defense plan. They are, of course, equally important in reducing India's ability to import commodities needed for economic development, thereby giving rise to demands for higher levels of U.S. economic assistance. Your own staff would, we believe, be in a better position to estimate the indirect import component of military production and procurement.

Some of this reduction, as you mentioned to Secretary McNamara, could come through a stretch-out of the buildup rate and the deferral of such items as the construction of new frigates.

Other reductions could result from elimination of certain items, e.g., additional SAM complexes.

Further reductions could result from the downward scaling of quantitative requirements, e.g., amount of ammunition productive capacity.

Still further reductions could result from Indian procurement from United States military surplus at favorable prices rather than procuring from third countries or manufacturing in India.

A foreign resource availability at the one hundred crore ($210 million) is only slightly more than that which has been available until recently to the far smaller Turkish (450,000) and Korean (550,000) armies. One might argue that by analogy a much larger sum would be required for the

the Indians in view of India's much larger armed forces and the much greater degree of obsolescence of the Indian army. However, none of our LDC allies has a defense production base comparable to India's. Equally important, the nature of India's confrontation with Communist China is such that her defense buildup does not immediately require large amounts of highly expensive sophisticated hardware.

A $210 million foreign resource level would not impose a major additional burden on the Indian economy since India's own free foreign exchange allocations for defense have been close to half that level for some years before the emergency. Projected U.S. and U.K. military assistance plus some continuing Soviet assistance cover a majority of the balance.

JPGrant:bw Clearances: DOD - Mr. Solbert AID/PRCS - Dr. Chenery
AID/NESA - Mr. White

SECRET

115

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON 25, D.C.

INTERNATIONAL SECURITY AFFAIRS

March 31, 1964
(As revised)
I-22816/64

MEMORANDUM FOR THE RECORD

SUBJECT: Conference between Secretary McNamara and Ambassador Bowles
March 31, 1964 at 4:30 pm

1. General Discussion.

Ambassador Bowles discussed the Indian Five Year Defense Plan and there was agreement that this plan was too large from the point of view of budget, force levels, and number of personnel in the armed forces, and foreign exchange. Ambassador Bowles estimated that the proposed budget would run at about 5.9% of the GNP which was definitely too high. Ambassador Bowles said that a program of $50 million U.S. grant military assistance, $15 million British grant military assistance and some military credit sales should be adequate for his dealings with the Indians insofar as amounts were concerned.

2. Aircraft Package.

Ambassador Bowles recommended that we offer to the Indians, under our Military Assistance Program something on the order of 70 F6A aircraft for relatively quick delivery and also offer to explore with the Indians the possibility of developing the HF-24. Ambassador Bowles stated that he was sure the Indians would proceed with the HF-24 whether or not we assisted. It was his hope that the foregoing package would be helpful in causing the Indians to reduce or discontinue their proposed MIG production.

3. Conclusions.

Mr. McNamara agreed that we could offer the F6A under our Military Assistance Program to India. He also agreed to include F5As in the range of alternatives for intermediate aircraft but this was to be done in such a way (limited number of aircraft, high cost, long lead time) so as to clearly load the decision in favor of the F6A. He also agreed that we could explore with the Indians the practicality of development of the HF-24, possibly with the Rolls Royce engine. Mr. McNamara also stated that our military assistance for India would have to include substantially more defense production (with the result that we might well have to do the same thing for Pakistan).

Mr. McNamara also agreed to the proposed Chavan visit in May and will send a letter to Chavan via Ambassador Bowles inviting him to Washington.

SECRET

4. Future Action.

a. Study of the Chinese Air Force. Ambassador Bowles is very anxious to have a detailed study of the Chinese air force as a threat against India. The purpose of this study is to permit Ambassador Bowles to point out the capabilities and weaknesses of the Chinese air threat to India. Ambassador Bowles is leaving for New Delhi on Saturday and it is doubtful whether such a study can be prepared by DIA in that time. However, we should collect for Ambassador Bowles a set of presently existing intelligence studies on the Chinese air force. If these studies contain information which Ambassador Bowles should not pass on to the Indians we must so indicate to him.

b. Comparison of Aircraft. Mr. McNamara would like to have an analysis prepared which will compare the Chinese aircraft capabilities with the capabilities of the F6A, the F5A, the F-104 A/B, the F-104G, the HF-24 in all versions including estimates on Mark II, and MIG 21. The table should also include similar information for certain aircraft in the Indian air force, namely, the Vampire NF-54, Mystere 4A, Hunter F Mark 56, GNAT F Mark I, Toofani, and Vampire FB-52. On a separate sheet information should be set forth concerning the capabilities of aircraft in the Pakistani air force so that a similar comparison can be made between the threat constituted by the Pakistani air force and the above named aircraft.

c. Development of the HF-24. We should promptly coordinate with the British an approach to Rolls Royce and to the Germans and arrangements should be made to send UK/U.S. representatives in the near future to India to look into the HF-24 development. A thorough investigation should be made as to the fitness of the Rolls Royce engine for the HF-24; the changes which would have to be made in the airframe design to accommodate the Rolls Royce engine; and the changes which would have to be made in the engine manufacturing plant in order to construct the Rolls Royce engine in India. If necessary U.S. representatives should be sent to England to look into the Rolls Royce engine further. If we need to go outside the armed forces and obtain people from industry to review such matters as the aircraft production plan in India, this should be done. The courses of action on this point would appear to be: (i) a cable to the British confirming our interest in this project and our desire to proceed promptly with the above investigation; (ii) arrange for discussions with Rolls Royce and the Germans, which would be attended by UK representatives and U.S. representatives from either London or Washington; and (iii) obtain GOI permission for access to HF-24 plants and technical designs of aircraft and select U.S. team to go to India along with the British. A joint UK-US team should go to India as soon as possible so that they can complete their investigation and return with a report prior to Chavan's visit to the U.S. in May. Ambassador Bowles on his return to New Delhi will, re coordination with the British, obtain from the Indians assurance that they will cooperate with the UK/US representatives and make all necessary information available to them to prepare their report.

d. The F6A. We should obtain promptly the refined pricing of the F6A and the related spares and training equipment. This will involve determining from Navy what portion of the spares are surplus stock and what portion of the spares would have to be sold by Douglas to India.

e. Sidewinders. Steps should be taken to obtain the necessary clearance to release to the Indians the F6A and Sidewinder missiles. This may prove somewhat sticky and should be started immediately so that problems can be ironed out as soon as possible and permission obtained. At the same time steps should be taken to acquire a Security of Information Agreement with the GOI.

Peter Solbert
Deputy

116

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON 25, D. C.

March 30, 1964

INTERNATIONAL
SECURITY AFFAIRS

Dear Bob:

I enclose for your information copies of papers which we have prepared on the HF-24 development and possible aircraft to be supplied to India on an interim basis.

Sincerely,

Peter Solbert
Deputy

Robert W. Komer, Special Assistant
to the Presidential Advisor on NSA
The White House

MAR 31 1964

116a

History of the Development of
the Indian HF-24 and
Possible Engines for the HF-24

Development of the HF-24 was started in 1959 by a group of German technicians headed by Dr. Kurt Tauk working for Hindustani Aircraft Limited (HAL). The first flight occurred in May 1961 and today at least four prototypes are flying.

Three versions of the HF-24 are presently in development, the Mark I (Mach .95), Mark IA (Mach 1.4) and Mark II (Mach 2). Basically, all versions are twin-engine, single place aircraft with changes in the power plant accounting for the differences in performance.

A summary of the characteristics of these three aircraft is as follows:

	MARK I	MARK IA	MARK II
Weight	16,000	17,000	20,000
Engine	2 Orpheus 703	2 Orpheus 703 (with AB)	?
Thrust dry	5000 lb	5000 lb	7000*
Thrust AB	-	6250 lb	10,000*
Speed	Mach .95	Mach 1.4	Mach 2
Armament	Guns, bombs, rockets	Guns, bombs, rockets	?
Electronic System	None	None	?
Mission	Strike	Strike	AWX
Status	4 prototype flying since mid-1961	1st flight planned for end 1964	1st flight dependent on engine selection

* Required thrust

Progress in this development has been slow as the Indians lack the talent and facilities for a major R&D job. German talent engaged in the program is good, but their number is small and handicapped without modern facilities - i.e., hi-speed wind tunnels, test equipment and industrial backup.

Very little technical data on this airplane is available in the U. S. or UK, and it is impossible to judge the potential of the HF-24 at this time. The Indians have spent approximately $45 million so far and give every indication of pursuing this project to completion. Their most important single requirement is an advanced engine for the Mark II version.

Original Development for Orpheus-12 Engine. The aircraft was originally designed around the Bristol-Siddeley Orpheus-12 engine. This engine was developed with considerable U. S. contribution (75%) through MWDP for a follow-on to the G-91 NATO Strike Fighter. Development of the engine was dropped in late 1959 when the aircraft requirement was discontinued.

At that time (late 1959) the engine had completed bench tests and about 25 hours of flight testing. Nothing has been done with this engine since then. Today one complete engine and bits and pieces of two others remain from this project.

Indian Desire for a Mach 2 Engine. During the past 3 years the Indians have been seeking a suitable Mach 2 engine for the HF-24. We reviewed our inventory last year and had nothing to offer in the weight and thrust class they required. The UK offered to revive the Orpheus

12 project but could never come to agreement with the Indians on costs. Russia offered an engine (VK-7) but major modifications to both the aircraft and engine were necessary. Although the Indians are reported to have bought 6 VK-7 engines its use in the HF-24 has been abandoned.

Each discussion of military assistance for India includes the HF-24 and their requirement for an engine. This was also a major item during our discussions with the UK in London on 25-26 March.

While neither the U. S. nor UK believe India required a Mach 2 aircraft in the present time frame India appears set on trying to obtain this capability with the HF-24 II and/or the MIG-21. Ambassador Bowles has argued that it would be to our political advantage to provide assistance on the HF-24 in that it might pre-empt the MIG-21. It would be owrthwhile to obtain the Ambassador's view on this point. As an indigenous development a Mach 2 HF-24 would have less political disadvantages with the Paks than something like the F-104 or Lightning. US/UK support for the HF-24 II development (primarily technical assistance) will definitely be required for a Mach 2 aircraft.

Three Alternative Engines. Three alternative engines have been considered.

1. Rolls Royce - RB-153/61. This engine is being developed by Rolls Royce for Germany. First flight is expected before the end of 1964 and German funds have been obligated to carry the project through initial flight testing. A brief analysis, based on limited information, indicates a combination of the HF-24 and RB-153/61 is feasible. The airframe will have to be modified to provide larger airflows for the

engine but this might not be a serious problem. The RB-153/61 is a modern engine and at this time appears to be the best and cheapest solution for a successful Mach 2 HF-24.

The Germans are committed to complete development to preliminary flight clearance and will probably complete the work to production standards. It might even be possible to enlist some German support to India in this respect.

Three steps would be needed to validate this analysis.

a. Rolls Royce should determine whether the sale of RB-153/61 engines to GOI would raise problems for the Germans.

b. Rolls Royce should send engineering-sales representatives to India to discuss, on a commercial basis, the use of the RB-153/61 in the HF-24.

c. Based on (a) and (b) above, discussions could be held between US-UK to consider whether the project is worth further consideration and whether the Indians should be approached with an offer of assistance. This would certainly turn to a large extent on estimated costs and whether we would have to bear any portion of such costs.

2. Bristol Orpheus-12. As mentioned previously the HF-24 was originally designed around this engine. Unfortunately almost 5 years have passed since development work was discontinued. While the engine did complete launch tests and had 25 hours of flight testing it never was developed to production standards. We estimate that approximately $15 million and 2-2½ years will be required to revive the project and

develop the engine to flight clearance for a foreign aircraft. Bristol could afford to fly the engine at less than these standards (as they did in 1959) with their own aircraft and pilot. However, with normal safety and contractual guarantees an outside aircraft manufacturer expects, Bristol cannot be criticized for wanting additional development work. They estimate this work would cost $15 million and 3½ years and the MOA indorses their estimate.

In our discussions with the British it was evident neither Bristol nor the MOA were interested in this project.

The engine design is based on 1958 technology and considerably behind today's state-of-the-art. Bristol-Siddeley would want to incorporate many new improvements in the compressor and combustion designs and also introduce several new high-temperature metals throughout the engine. Their Orpheus-12 design team has been disbanded for 5 years, along with the special tools, test equipment and other facilities required to re-engineer this engine.

Because of Bristol's present heavy commitment to high priority UK projects (P-1154, TSR-2, supersonic transport, etc.) the MOA stated that they were very reluctant to place this additional burden on the company.

3. New Engine Developed from the Pegasus 5. The Pegasus 5 is a new lift-thrust engine now under development for the P-1127. It consists of a high pressure compressor, combustion system and turbine which drives a large forward fan. Bristol proposed to use the Pegasus 5 high pressure compressor, combustion system, shaft, turbine and bearings

for a new engine. A new engine casing and accessory drive would have to be designed. We agree a new engine could be designed around these components except for the shaft and bearings.

Bristol proposes to supply the compressor, combustion system, turbine, etc., to the Indians and have them design the engine casing and accessory drives. This would be an unsatisfactory arrangement even if the Indians were fully capable of this work. Such a division of design responsibility is always costly and unsatisfactory.

Bristol estimates the complete development of the Pegasus (Indian and Bristol work) to preliminary flight clearance would cost $20-25 million and to take $3\frac{1}{2}$ years. We are not in a position to evaluate this estimate. However, the Pegasus 5 is presently in technical trouble with respect to the turbine and combustion system. A new engine designed around these under-developed components would complicate the job and be more costly in time and money.

~~SECRET~~

116b

Possible Aircraft For Grant Aid or Sale to the Indian Air Force

UK

1. Javelin MK 8 - An obsolescent British interceptor, approximately Mach .9 and 250 nm radius of action. Costs are estimated at $16 million for rehabilitation of 20 aircraft (all that are available) and such spares, training equipment and ground handling equipment as are available from existing stock (quantity unknown but definitely insufficient for even one year's operation). The British made it clear they were not interested in sending these to India as they are second class aircraft and India would require continued support for years to come.

2. Javelin MK 9 - In service with the RAF as first line equipment. Although subsonic the MK 9 is much improved over the MK 8. Although the MK 9s will be replaced by the Lightning P.1b beginning June 1964, the UK Air Ministry stated no MK 9's will be available until the end of 1965 at the earliest. Those replaced earlier will be put in short term storage as contingency reserves.

3. Lightning - Mark II - Thirty to forty aircraft complete with spares, training and ground handling equipment are available almost immediately. This is a first class night/weather interceptor (Mach 2) but with only 140 nm radius of action. Costs are estimated at about $3 million per aircraft including spares, etc. This is far more than the Indians require.

~~SECRET~~

US

1. F-6A - A Douglas Mach .98 interceptor phased out of USN units. Approximately 200 aircraft, quantities of spares, training equipment, etc., are available almost immediately. The first aircraft can be delivered in two months from go-ahead, and the full three squadrons (72 aircraft) delivered twelve months later. MAP costs to rehabilitate the aircraft and support for five years is estimated at $28 million - $16 the first year and $3 million per year for the next four. (Inclosure 1)

This aircraft would be very adequate as a night/weather interceptor to cope with the military threat India can expect from the Chicoms. It has a good fire control system and carries guns, air-to-ground rockets and Sidewinder missiles.

2. F-86. This aircraft is available in three versions. The F-86L is an all weather interceptor of which 146 will be excess to U.S. Air Force needs by the end of FY 65 at a cost to MAP of $90,509 per aircraft or $5.4 million for 60 aircraft with spares estimated at $4.2 million. The F-86D, which has essentially the same capability as the F-86L, is presently excess to the Air Force in number of 76, and runs approximately the same in cost to MAP. The F-86K is a limited weather interceptor of which there are 75 in Germany provided to the FRG under MAP. The FRG has been willing to offer these for reallocation and did, in fact, offer them to both Pakistan and India. These offers were rejected. MAP costs for the F-86K would be essentially the same as for the F-86L.

3. F-104G - Currently being delivered to MAP from Canadian and US production, but all have been allocated. It is a one seater Mach 2 fighter; cost is about $2.3 million per aircraft, including spares for one year operation, training and ground handling equipment. It has the basic electronics installed for an all-weather capability, but extensive development of the fire control missile system would be required to make it a true all-weather interceptor. At present the F-104G does have a good night/limited weather capability.

4. Other aircraft, such as the F-5A, A-4 series, F-104A, F-102A, etc., have been considered but rejected either because of non-availability or lack of night/weather intercept capability.

1160

F-6A (F-4D-1) Aircraft
Five-Year Program Cost Estimates

72 Aircraft Program

Modification and Repair of 72 aircraft	$ 6.0 million
Aircraft Spares (other than engine spares)	11.0 million
J57 Engine Support Equipment and Spares	
Spare Engine Parts	5.4 million
Spare Engines	2.6 million
Ground Support Equipment	.1 million
Special Support Equipment	2.0 million
Factory Training and on-site Training by Douglas	.3 million
Field Service	.6 million
Total Estimated Cost	$28.0 million

Note: 1. Estimated prices for aircraft spares and engine spares and special support equipment are quoted at current manufacturers' sales prices. If deemed surplus, they may be sold at substantially reduced rates.

2. The foregoing does not include any pilot training for the IAF.

SCHEDULE
After Receipt of Go-Ahead

First aircraft delivery	2 months
Rate Increases to 8 per month	9 months
72 aircraft complete	14 months

Incl 1

Cost Estimates in Millions of Dollars

Year	Mod & Repair	A/C Spares and support equipment	Engine Parts	Special Support Equipment	Spare Engines	Factory Training and Field Service
1		6.416	1.115	1.819		
2		1.497	.994	.033		
3		.855	1.116	.033		
4		.855	1.116	.033		
5		1.069	1.116	.033		
Total	6.0	10.693	5.456	1.951	2.6	0.9

India Map

117

CROSS REFERENCE SHEET

TYPE OF DOCUMENT Cable _____

Letter _____

Memo _____

Other Report

DATE 3/27/64

FROM _____

TO _____ NUMBER _____

SUBJECT Status Report of Action on Ambassador Bowles' Recent Proposals

SEE Bowles
x India

KOMER

118

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INFO RUCQHKB/CINCSTRIKE

RUEPCR/WHITE HOUSE WASHDC

RUSBAE/CH USMSMI NEW DELHI INDIA

BT SECRET

~~S E C R E T~~ 015 AFC. SEC DEF FOR OASD/ISA. WHITE HOUSE FOR MR. KOMER, SPECIAL ASST TO PRESIDENT. REFER TO SECRET DEF 955317 FROM OASD/ISA DTD 11 FEB 64. MAAG-UK HAS CONTACTED MR. DODDS, UNDER SECRETARY, MINISTRY OF DEFENCE (MOD), REGARDING REFERENCE. IMMEDIATE FOLLOW-UP WAS MADE THE FOLLOWING DAY BY LETTER. MR. DODDS IS BRAND NEW IN THIS JOB. ACTION AGENCY SO FAR HAS BEEN MINISTRY OF AVIATION (MOA) WHO HAVE BEEN IN TOUCH WITH BRISTOL SIDDELEY. TO DATE MAAG HAS BEEN UNABLE TO GET A POSITIVE REACTION FROM MOD BUT HAVE FORCED A MEETING FOR 9 MAR 64 WITH MOA PERSONNEL. FYI. INDICATIONS ARE THAT THERE WILL BE MANY QUESTIONS FROM MOA BEFORE MOD WILL GIVE A DEFINITE

REACTION. IT APPEARS THAT UK WONDERS WHY WE PICKED THIS PARTICULAR ENGINE. ALSO, GOT AN INDICATION THAT BRISTOL SIDDELEY WOULD LIKE TO OFFER UP THE PEGASUS 5 IN THE PROPER CONFIGURATION. THIS ENGINE IS PRESENTLY BEING USED IN P-1127 WITH ROTATING NOZZLES. END FYI.
VERY LITTLE INFORMATION AVAILABLE ON ORPHEUS 12 BUT WE CONTINUING EXPLORE US SOURCES. OUR TENTATIVE REACTION IS DATA CONTAINED YOUR MESSAGE REFLECTS CURRENT SITUATION AND THAT PROJECT HAS BEEN PUT ON SHELF BY BRITISH. EMBASSY FEELS THAT IF OUR QUERIES ARE FOCUSED SOLELY ON ORPHEUS 12, AND RELATED SPECIFICALLY TO INDIA, IT WILL REACTIVATE JULY 1962 OFFER TO BRIT MINDS. CONSIDERS IT WOULD BE MORE DESIRABLE IF WE LIMIT APPROACH TO BRITS SEEKING INFORMATION ON STATUS OF ORPHEUS 12 IN LIGHT OF OUR MWDP INTEREST. ON ADEQUACY OF ORPHEUS 12 FOR HF-24, EMBASSY BELIEVES EXPLORATION IN NEW DELHI BY US WITH BRIT AND INDIANS WOULD PROVE MORE FRUITFUL THAN LONDON. NEEDLESS TO SAY, TALKS HERE RELATING ORPHEUS 12 TO HF-24 WOULD STIMULATE BRITISH APPETITE FOR ENGINE BUSINESS AND EXPECTATION US WOULD BE FINANCING SOURCE. GP-4
BT

[redacted]

NNNNW

119

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON 25, D. C.

February 20, 1964

INTERNATIONAL
SECURITY AFFAIRS

Dear Bob:

Here are some papers on the HF 24 that might interest you.

Sincerely,

Peter Solbert
Deputy

Mr. Robert Komer
The White House

FEB 24 1964

119a

CONFIDENTIAL

DEPARTMENT OF THE AIR FORCE
WASHINGTON

OFFICE OF THE UNDER SECRETARY

January 17, 1964

MEMORANDUM FOR THE ASSISTANT SECRETARY OF DEFENSE (INTERNATIONAL SECURITY AFFAIRS)

There seems to be little question that pursuit of the Indian HF-24 program would be the means of providing them with supersonic aircraft, least resented by Pakistan and certainly least likely to conflict with our further modernization of the Pakistani fighter force. Certain things, however, should be recognized in any consideration of this idea.

a. We really know very little technically about the HF-24. It was designed by a German group headed by Kurt Tank who, we believe, had considerable competence, although we have never seen the designs and cannot, therefore, pass technical judgement onthe merits of the airplane. It has been flown but never at anything resembling the design speed.

There seems to be no question that the aircraft was designed around the Bristol Orpheus XII engine. This engine was developed quite largely with U. S. contribution(about 75% of the funds) to power a fighter aircraft originally conceived as a replacement for the G-91 (NATO light-weight strike fighter). When development of that aircraft was discontinued, we dropped the Orpheus XII but Bristol-Siddeley decided to continue development (how much of their own money they spent we don't know) for use in the twin engine HF-24. At the time we dropped it, four engines had been built and tested and at least one had a reasonable amount of flight test in an F-86. Based on this we know the engine reasonably well, are satisfied with its performance and regard it as a very good and efficient design. The engine's size (power) is not comparable to any in our inventory, ours being all larger or smaller, and we have nothing that can reasonably replace it in the HF-24.

The Russians offered the Indians various engines, including VK-5 and VK-7 in the same general thrust area but heavier and of different shape and bulk. At that time we researched the possibility of providing another engine. We were convinced that neither the West nor the Bloc had any engine which could replace the Orpheus XII without a complete redesign of the aircraft. We believe that the Indians' failure to make anything of the Russian offer (we understand that they bought some) seems to confirm this. We, therefore, remain of the opinion that if the HF-24 is to be carried forward, the only sensible thing is to do so with an Orpheus XII engine.

FEB 24 1964

CONFIDENTIAL

CONFIDENTIAL

When we dropped development interest in the Orpheus XII, we released our interests in the four engines which had been built. Our current information is that one of those engines is in fairly good condition but the other three are in "bits and pieces" and, furthermore, a good many components of these engines are missing having been used for other development work and will have to be replaced. We attempted informally to obtain in the last few days an indication of what it would cost to put one of these engines back together in sufficiently good condition to permit a short test flight of the HF-24 which would at least initially demonstrate its characteristics. It is apparent, however, that Bristol-Siddeley recognized the only logical purpose for which we could want the engine and have determined to stick to their decision that they will do nothing for less than a commitment of some $12-13 million to put the program back in shape and provide six fully qualified engines together with a manufacturing capability.

In view of the situation above, it seems to us that the only logical steps to take if we are to go forward with anything on the HF-24 is:

a. To insist that either we or the British be allowed on a classified, NOFORN basis to examine the designs of the HF-24 sufficiently to reasonably confirm its theoretical performance with the known Orpheus XII power and,

b. To determine the prospects of a successful completion of the development if that power is provided.

Assuming a satisfactory outcome of such an examination, an Orpheus XII engine should be put together at minimum cost, installed in the aircraft and tested. If this demonstrates the correctness of the theoretical evaluation, the program for production could be developed. To accomplish this requires some means of forcing the Bristol-Siddeley Company to agree to something less than their repeatedly stated and firmly held position that they will not move except against a commitment comparable to that which they handed the Indians and with which the Indians refused to go forward. This could only be accomplished in our opinion by pressure from the British Government, certainly not from us. Accordingly, the necessary decisions are:

a. Can we and should we insist that the Indians take us into their confidence with regard to the design of the aircraft so that we can reach our own conclusions with regard to its theoretical capability, and

b. Can we induce the British to assist and can they force Bristol-Siddeley to a more reasonable position?

In our opinion there is no question that test engines could be put in a usable condition for a relatively small part of the amount which Bristol-Siddeley insists they must have before they will do anything.

Decisions a and b can be sequential, i.e., we do not need British cooperation to evaluate the airplane if the Indians will play ball. However, there is no hope of getting a reasonable deal with Bristol-Siddeley unless the British can apply the necessary pressure.

PHILIP F. HILBERT
Deputy for Requirements Review

SECRET

1196

DEPARTMENT OF THE AIR FORCE
WASHINGTON

OFFICE OF THE UNDER SECRETARY

February 10, 1964

MEMORANDUM FOR DIRECTOR, NEAR EAST, SOUTH ASIA & AFRICA
REGION, OSD/ISA

We have seen message C-25 from USAIRA New Delhi (AF IN 10349, 8 Feb), indicating that the German designer of the HF-24 had no doubt that the E-300 engine would power the aircraft. Our information does not confirm this assurance, but without question Tank has a good deal more knowledge about the airplane he designed than we have and he may well have been given more information regarding the E-300 engine.

If Tank is correct and such a deal can be made, it will certainly be in our interest since it would remove from us the stigma of providing the means toward a supersonic aircraft for the Indians, about which the Pakistani would certainly be unhappy, and it would also eliminate the Indians' reliance on Russia and probably the production of the MIG-21's. We will again research our files of information on the HF-24 and the E-300.

PHILIP F. HILBERT
Deputy for Requirements Review

DOWNGRADED AT 3 YEAR INTERVALS; DECLASSIFIED AFTER 12 YEARS. DOD DIR. 5200.10

DECLASSIFIED
E.O. 13292, Sec. 3.5
NLJ 06-249
By isl, NARA, Date 2-15-07

SECRET

FEB 24 1964 4 - 0578 1/

1 2/20/64

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NSA

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SECRET

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
INCOMING MESSAGE

[redacted]

BT

[redacted] NOFORN EXCEPTITNS C-25

[redacted] KURT TANK GERMAN DESIGNER

INDIAN HF-24 JUST RETURNED FROM CAIRO AND HAS NO DOUBT THAT

E-300 ENGINE WILL POWER HIS AIRCRAFT. [redacted] HE HAD

FIVEZT74LONG TALK WITH TANK CONCERNINGINDIAN PRODUCTITN

MIG-21'S AND OR HF-24'S. TANK SAID INDIANS WILLPRODUCE HF-24

AND NOT MIG-21'S FOR FOLLOWINGREASTNS:

1. HF-24 CHEAPER.

2. BE OPERATITNAL SOONER.

3. HF-24 60 PER CENT MANUFACTURED LOCALLY 40 PER CENT FOREIGN.

INFO CONCERNINGPERFORMANCE DATA HF-24 MARK 1 (WITH ORP-

HEUS 703 ENGINE) AND HF-24 WITH E-300 ENGINE WILLBE
FORWARDED [redacted] GP-4.

BT

FEB 24 1964

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119d

MESSAGE

DEPARTMENT OF THE ARMY
STAFF COMMUNICATIONS DIVISION

PRECEDENCE		TYPE MSG (Check)			ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
		BOOK	MULTI	SINGLE			
ACTION	ROUTINE		X		OSD		
INFO	ROUTINE						

FROM:
OSD WASHINGTON DC

TO: CHMAAG LONDON ENGLAND

INFO: USCINCMEAFSA/CINCSTRIKE
WHITE HOUSE WASH DC
CHUSMSMI NEW DELHI INDIA

DOWNGRADED AT 3 YEAR INTERVALS; DECLASSIFIED AFTER 12 YEARS. DOD DIR 5200.10

~~SECRET~~

FROM OASD/ISA White House

DEF 955317

FOR MR. KOMER-SPECIAL ASST. TO PRESIDENT

REF: AmEmb ND 2081, 9 January 1964

1. Requirement exists to determine feasibility of support of HF-24 program in India. If program technically sound, believe U.K. should explore with GOI subject of Bristol-Orpheus XII engine.

2. Unknowns are whether (a) GOI will permit examination HF-24 designs sufficiently to confirm theoretical performance with Orpheus XII engine, and whether (b) British Government will press Bristol-Siddeley Co. to go ahead with engine, for installation and test in HF-24, providing approval of (a).

3. We understand that of the original four engines, developed with U.S. contribution, one is in fairly good

SPECIAL INSTRUCTIONS

COORDINATION:
Air Force Mr Hilsman
Joint Staff Tuthill/C
State Mr Green
ODMA Gen Steele
Mr. Solbert OK

DISTRIBUTION:
Air Force
Joint Staff
State
OSD

DATE | TIME
MONTH: Feb | YEAR: 1964

WRITER
SYMBOL: OSD
TYPED NAME AND TITLE (Signature, if required): COL. C. P. MILLER/ASSISTANT
PHONE: 53890 | PAGE NR.: 1 | NR. OF PAGES: 2
SECURITY CLASSIFICATION: ~~SECRET~~

RELEASER
SIGNATURE
TYPED (or stamped) NAME AND TITLE
Jonathan D. Stoddart
Deputy Director
Near East, South Asia and Africa Region

DEF 955317

112212Z FEB 64

~~SECRET~~

FEB 24 1964

condition and another might be reassembled from the others. These might be all that are needed to permit a short test flight of the HF-24 to demonstrate at least initially its characteristics.

4. Request you seek U.K. MOD reaction to their approaching GOI to let British technicians (and American, if desired) examine designs sufficient to confirm reasonably its theoretical performance with Orpheus XII power and to determine prospects of a successful completion of the development if that power is provided. If MOD reaction favorable, we will be in touch with the British on political level regarding their approach to India.

5. As you aware, in 1962, we offered support development of Orpheus engine. In connection efforts forestall GOI purchase MIGs (see State telegram 6679 to London, June 1962), there is no intention suggest to British that this offer still stands. GP-4

~~SECRET~~

1196

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
INCOMING MESSAGE

[redacted]

BT
~~S E C R E T~~ NOFORN
CITE [redacted]

MSG IN TWO PARTS.

PART I HF-24 WITH E-300 ENGINE:

1. WEIGHT (FULL FUEL AND ARMAMENT) 20,000.

2. ARMAMENT LOAD: 3500.

3. RANGE (MIL RATED POWER) IN AIR DEF ROLE 120 NM.

4. DURATION OF FLIGHT HI-HI-HI PROFILE 2:40 HRS.

5. E-300 ENGINE ABLE TO DEVELOP 4.5

PART II HF-24 WITH ORPHEUS 703 ENGINE.

1. STALL SPEED CLEAN 112K.

2. TOUCH DOWN SPEED 135K.

3. POD UNDER FUSELAGE WILL CARRY 52 MISSILES (INFA-RED) SOVIET TYPE.
GP-3
BT

FEB 24 1964

AFHQ FORM JAN 62 0-309b
PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

~~SECRET~~

COPY NO.

India MAP
x India MAP
x Pak MAP
120.

THE WHITE HOUSE

WASHINGTON

SECRET

February 8, 1964

NATIONAL SECURITY ACTION MEMORANDUM NO. 279

MEMORANDUM FOR THE SECRETARY OF STATE
THE SECRETARY OF DEFENSE

SUBJECT: Military Assistance to India and Pakistan

I have no objection to going forward with exploratory approaches looking toward possible five year MAP programs for India and Pakistan under the conditions described in the Secretary of State's 16 January memorandum to me.

However, I do not believe that we should yet discuss MAP levels with either country. Until we have a clearer idea of the prospects for the FY 1965 aid program, it seems to me premature to indicate to India or Pakistan how much military aid they might be able to count upon, regardless of how tentatively we put it. Instead, we should indicate to both governments that they should prepare austere minimum five year programs. Then, as their plans mature and as we get a better reading on Congressional attitudes, we can make a final decision on what MAP to provide.

Furthermore, in the course of these discussions I desire that the following precautions be observed:

1. We should make clear to both countries what we expect of them in return for prospective long-term military aid. As to India, we particularly want it to hold foreign exchange diversions from development to defense to a reasonable level, lest we end up indirectly helping finance an excessive defense effort via aid which we provide for quite another purpose.

2. In the case of Pakistan, our MAP help should be appropriately linked to satisfactory performance with respect to its alliance obligations and to our intelligence facilities.

SECRET

3. Both governments must be made to understand that no irrevocable five year MAP commitments can be undertaken by the US, both because aid levels each year will depend on Congress and because our actual aid each year will depend on continuing Pakistani and Indian performance.

4. Our approaches to India and Pakistan should be timed for optimum impact. For example, I do not believe that we should initially approach Pakistan until we have assessed the results of the Chou En-lai visit.

With these caveats, I approve proceeding along the lines of the Secretary of State's 16 January proposals.

cc: The Administrator, AID
The Director of Central Intelligence

cc:
Mr. Bundy
Mr. Komer
Mr. Johnson
NSC Files

20 January 1964

Indian Map 121

MEMORANDUM FOR MR. KOMER

Attached is JCS document JCSM 1006-63, dated 26 Dec 63, which may be of interest to you. As Mr. Bundy directed on 19 November, please read this document for "background only," in the sense in which the press understands that term. Any compromise of source could dry up this potentially useful channel of information overnight.

Please return the attached document to Smith, Room 376A EOB, in a sealed envelope, not later than 24 January 1964.

W. Y. SMITH

Attachment
a/s

N 21 1964

121a

~~TOP SECRET~~

THE JOINT CHIEFS OF STAFF
WASHINGTON, D. C. 20301

JCSM-1006-63
26 December 1963

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: Contingency Planning - India (U)

1. The Joint Chiefs of Staff have reviewed the status of contingency planning for India, and the relation of such planning to military assistance policy.

2. Based on the rationale contained in the Appendix hereto, the Joint Chiefs of Staff conclude that US military planning and military assistance programs for India should be based on:

a. India achieving and maintaining a capability to withstand a Communist Chinese attack on approximately the same limited scale as occurred in the fall of 1962.

b. Collective action by the United States and other Free World forces of the magnitude required to stop a maximum supportable Chinese communist attack and to restore the status quo that existed prior to initiation of aggression.

3. The Joint Chiefs of Staff consider that the foregoing policy is appropriate for:

a. The development of contingency plans currently in progress.

b. The review of military assistance programs for India.

d. The development of a Department of Defense position for use in interdepartmental policy discussions relative to South Asia.

For the Joint Chiefs of Staff:

/s/ MAXWELL D. TAYLOR
Chairman
Joint Chiefs of Staff

Copy 1 of 21 copies each
of 1 pages series "B"

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Attachment

APPENDIX

1. The Joint Chiefs of Staff have reviewed possible US courses of action in the event of a Communist Chinese attack on India and the status of contingency planning for such an eventuality. They have determined that, in addition to the existing US unilateral plan for augmenting Indian air defense if required, plans should be developed for two possible situations:

a. A Chinese attack with limited objectives on approximately the same scale as occurred in the Fall of 1962 or smaller. Current intelligence estimates indicate that, if the Chinese do attack, this situation is most probable.

b. An attack at the maximum level which the Communist Chinese can support logistically. Although the probability of an attack on this scale is remote, it is possible that a limited attack situation could escalate into large-scale hostilities.

2. In the limited attack situation, the Joint Chiefs of Staff consider that if Indian forces, including the IAF, are properly deployed, employed, and supported, India could hold the Chinese to limited advances. Therefore, involvement of US forces in combat, with the possible exception of a USAF force providing air defense assistance, should not be necessary. Consequently, additional US contingency plans for this situation should be limited to providing increased logistics assistance, to include logistics advisors and airlift support, to alleviate existing serious Indian deficiencies in logistics support capability and to provide UW forces in an advisory capacity, if required. Implementation of such plans would require

TOP SECRET

increasing US readiness posture for operations against the Red China mainland in such a manner as to be noticeable to the Communist Chinese thus posing a deterrent to escalation of hostilities. Such actions could include deploying naval and air forces to the Indian Ocean/South Asia Area, augmenting PACOM forces, more favorable positioning of PACOM forces, and increasing the readiness of strategic forces.

3. In the event of a maximum supportable CHICOM attack against India, the United States, in conjunction with other Free World nations, should be prepared to undertake appropriate courses of action selected from the attached annex, required to stop a Chinese communist attack and to restore the status quo that existed prior to initiation of aggression. These actions would reduce the over-all capability and support bases available to the communists for operations against India and enhance Indian capability to withstand the attack. Consequently US ground forces should not be committed in India other than those required to advise the Indian Army.

4. The necessity in present circumstances to plan for the defense of India as part of the over-all defense of the Free World highlights a fundamental issue with respect to future US policy toward India: should the objective of continued US assistance to India be to permit India to achieve a military capability equal to or greater than the Chinese communist threat, or should it be to help India develop only that capability required to withstand a Chinese communist attack on a limited scale and rely upon collective action by Free World forces in the event of a large-scale Chinese attack? There is little question that Indian plans and aspirations are directed toward attaining self-sufficiency.

5. The main arguments for a high-level of military assistance to India appear to be that it could: (a) provide a counterbalance to Communist Chinese power in Asia, (b) move India toward closer alignment with the West, (c) pre-empt Soviet

influence to the maximum extent possible, and permit employment of Indian forces for regional defense. The following factors, however, militate against continuing US assistance to India on a large scale:

a. The slow rate at which military assistance is being absorbed, persistent deficiencies in logistics and training, and lack of defense production organization and capability.

b. Mistrust of Indian intentions among Asian neighbors.

c. Exacerbation of US/Pakistan relations.

d. India's nonalignment policy which will seek to balance US and Soviet opportunities for influence.

e. Decreasing funds available for US military assistance world-wide.

f. Logistics obstacles to the utilization of Indian forces elsewhere in Asia.

g. Uncertainty as to future political developments in India.

h. Over-emphasis on military power could prove detrimental to the Indian economy and internal stability.

i. Reduced US influence on Indian policy which probably would result if Indian self-sufficiency were attainable.

j. Aggravation of the US balance of payments problem, particularly since the GOI has recently suggested that all military assistance be on a grant aid basis.

6. The alternative to large-scale assistance is to limit US military and defense production assistance to only that necessary for India to develop a capability to deter or, if necessary, contain a limited Chinese attack (taking into account assistance available from all sources, including the Soviet bloc). This alternative is desirable because it:

a. Is realistically attainable at minimum cost.

b. Would serve to alleviate Pakistan's fear of Indian aggression.

c. Would provide maximum impetus toward participation by India in collective security arrangements with the West and in the subcontinent.

TOP SECRET

d. Would permit maximum US influence of Indian policy. For example, India could not recover the Aksai Chin without assurance of US support.

e. Would provide a basis for challenging Soviet intentions with respect to choosing sides if Indian-Chinese hostilities are renewed.

7. It is recognized that pursuing the course of limited military assistance could necessitate a commitment by the United States to come to India's defense in the event of a Chinese attack. However, such a commitment has already been implied by US military assistance to date, by the existing air defense arrangements, and by broad US policy to assist any nation to resist communist aggression. The risk that India could turn to the Soviet Bloc to meet Indian estimates of defense requirements also is apparent. The willingness of the Soviet Bloc to provide assistance on this scale is questionable. However, the United States, in concert with other Western nations, should be prepared to exert pressure on India to preclude a serious move in this direction.

8. It is emphasized that use of US forces as well as Allied forces in actions against Red China should be undertaken with full appreciation of the probable need for and a willingness to commit additional US forces in the event the communist reaction escalates the situation.

ANNEX

POSSIBLE COURSES OF ACTION IN THE
EVENT OF CHICOM AGGRESSION AGAINST INDIA

A. LIMITED ATTACK SITUATION:

1. Execute contingency plan for augmenting Indian air defense.

COMMENT: Consultation with the Government of India would be required. Obtain Commonwealth participation.

2. Deploy US forces to assist in logistics, maintenance, and communications support of Indian forces.

COMMENT: Obtain Commonwealth participation, particularly in the support of Indian combat aircraft.

3. Provide additional airlift support as required.

4. [redacted]

COMMENT: [redacted]

3.3(b)(1),(5),(6)

5. [redacted]

COMMENT: Consideration should be given to augmenting Indian aerial reconnaissance if situation warrants.

6. Provide unconventional warfare (UW) forces to assist Indians in training for and direction of UW operations.

COMMENT: Indian UW operations should be directed by the Indian armed forces.

7. Provide necessary US headquarters in India to command deployed units and coordinate plans for possible larger US involvement.

8. Deploy US combat forces in Western Pacific.

COMMENT: Consider deploying additional US tactical air units to the Philippines and Taiwan.

9. Deploy US combat forces in South Asia/Indian Ocean area.

COMMENT: Consider deploying USAF tactical air units to South Asia and an attack carrier group into the Indian Ocean.

B. MAXIMUM SUPPORTABLE ATTACK. Execute appropriate course of action above, if not already accomplished, and:

1. Obtain UN sponsorship of operations and commitment of Free World forces as possible.

2. Provide necessary military personnel to act in advisory capacity to the Indian army, naval, and air forces.

3. Deploy tactical air units to India.

4. Conduct air reconnaissance and nonnuclear air strikes to destroy key CHICOM airfields and supply and distribution facilities which are in direct support of CHICOM offensive operations, emphasizing attack of POL installations, and assist in Indian Air Force interdiction and close air support operations.

5. Seizure and destruction of shipping, fishing vessels, and warships serving Red China.

6. Encourage Chinese Nationalist, Korean, and indigenous forces in Southeast Asia in logistically supportable operations against CHICOMS as appropriate.

7. Conduct nonnuclear air strikes against broader elements of the CHICOM war-making capacity.

8. Conduct air strikes [redacted] broader elements of the CHICOM war-making capacity.

3.3(b)(5), (6)