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Description of document: History of Air Technical Intelligence Center (ATIC),  
Wright-Patterson Air Force Base, Dayton Ohio  
1 January 1954-30 June 1954

Requested date: November 2022

Release date: December 2022

Posted date: 02-January-2023

Source of document: National Air & Space Intelligence Center  
United States Air Force  
NASIC/SCPD (FOIA)  
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# HISTORY OF AIR TECHNICAL INTELLIGENCE CENTER

1 JANUARY 1954 - 30 JUNE 1954



**AIR TECHNICAL INTELLIGENCE CENTER**  
**WRIGHT-PATTERSON AIR FORCE BASE**  
**OHIO**

Copy No. 5

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HISTORY OF  
AIR TECHNICAL INTELLIGENCE CENTER  
1 January 1954 - 30 June 1954

Prepared by  
Policy and Management Office  
AIR TECHNICAL INTELLIGENCE CENTER

~~30 June 1954~~  
31 JULY 1954

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FOREWORD  
TO THE HISTORY OF  
THE AIR TECHNICAL INTELLIGENCE CENTER

For the Period  
1 January 1954 - 30 June 1954

In this edition of the Center History a new Section, V, Periodic Reports, has been added. At the end of this section, an index of ATIC projects mentioned in the text has been included. Minor changes have also been made in the order of components in Section IV, Divisions. The rest of the history remains essentially the same as the preceding edition, in plan and format.

The organizational structure shown in the chart on following page differs in two minor respects from the organizational structure as of 30 June 1954. The Administration Office of the Technical Analysis Division was not established as a separate entity as of that date, but was included as a part of the Plans and Operations Office. The ATIO Processing Section, not shown on the chart, was a part of the Personnel Branch, Policy and Management Office.

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# OFFICE OF THE COMMANDER

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## OFFICE OF THE COMMANDER

## I. ORGANIZATION, FUNCTIONS, AND KEY PERSONNEL

The over-all function of the Office of the Commander is to guide and direct the activities of the Air Technical Intelligence Center (ATIC) in the accomplishment of its mission, which is to provide air technical intelligence that will prevent technological surprise, serve as a sound technical basis for counsel on air preparedness, and support planning and conduct of air operations. This office executes the orders and directives of higher authority. (~~CONFIDENTIAL~~) (unclsa)

At the beginning of the period, the Office of the Commander was authorized nine persons: three officers, one airman, and five civilians. Nine persons were assigned: four officers and five civilians. Key personnel were as follows:

Commander - absent because of illness	Brigadier General William M. Garland
Deputy Commander - acting Commander during General Garland's absence	Colonel George L. Wertenbaker
Executive - acting as Deputy Commander	Colonel John A. O'Mara
Administrative Officer - an overage temporarily assigned in lieu of an acting Executive	Captain Dixie C. Hampton
Scientific Advisor	Mr. A. Francis Arcier
Civilian Assistant	Mr. John S. Honaker

(Uncl)



During the period, the following changes occurred in functions and key personnel:

On 1 January 1954, Brigadier General Garland was transferred to 1072d Hospital Squadron, Headquarters Command, Army Medical Center, Washington, D.C., for subsequent retirement.<sup>1</sup> Colonel Wertenbaker continued in command.<sup>2</sup> (Uncl)

Captain Dixie C. Hampton was relieved from duty as Administrative Assistant in the Office of the Commander and from assignment to the 1125th USAF FAG (ATIC), and departed on 20 April 1954 for duty in the Office of the Air Attache, London, England.<sup>3</sup> (Uncl)

On 3 May 1954, the Internal Security Branch, formerly a function of the Inspector General's Office, was transferred to the Office of the Commander under jurisdiction of the Executive.<sup>4</sup> This activity is responsible for advising and coordinating on matters pertaining to the internal security of ATIC, formulating and executing the plans, policies and procedures necessary for physically safeguarding the ATIC, and assuring proper security clearance for personnel assigned.

(Uncl)

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1

DAF: SO 251, 28 Dec 53.

2

Hq 1125th USAF FAG (ATIC): GO 2, 1 Jan 54.

3

Hq 1125th USAF FAG (ATIC): SO 44, 14 Apr 54.

4

Hq 1125th USAF FAG (ATIC): GO 13, 3 May 54.

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The transfer of this function to the Office of the Commander resulted in an increase of four manpower authorizations: one officer, one airman, and two civilians. The airman position was vacant at the time of the transfer. Key personnel transferred from the former Inspector General's Office were Colonel Frank C. Auten, Jr., former Inspector General, assigned temporarily as Executive, and Captain James C. Paschal, Internal Security Officer, transferred without change in title with the internal security function.<sup>5</sup> (Uncl)

On 16 June 1954, Colonel Malcolm D. Seashore<sup>6</sup> reported for duty with the 1125th USAF FAG (ATIC) and was assigned to the Office of the Commander as Executive the following day.<sup>7</sup> (Uncl)

Effective 17 June 1954, Colonel Auten was relieved from duty as Executive and assigned to duty as Administrative Officer in the Office of the Commander,<sup>8</sup> pending departure for his new assignment at Chanute AFB, Illinois.

One additional civilian allotment, clerical, was authorized as a result of workload survey conducted in January 1954. (Uncl)

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<sup>5</sup> See History of the Inspector General's Office, pg 35 this edition of the ATIC History.

<sup>6</sup> AAC, APO 942, Seattle, Wash: SO 63, 31 Mar 54.

<sup>7</sup> Hq 1125th USAF FAG (ATIC): OO 14, 17 Jun 54.

<sup>8</sup> Hq 1125th USAF FAG (ATIC): PAM 38, 17 Jun 54.

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Manpower authorizations and personnel strength at the end of the period were: authorized, four officers, two airmen, eight civilians, -- a total of 14; assigned, five officers, one airman, seven civilians, -- a total of 13. One civilian and one airman position were vacant and one officer overage was temporarily assigned. All positions were filled according to classification rank or grade with the exception of the Internal Security Officer's position which called for a major but was filled by a captain. Key personnel were as follows:

Commander	Colonel George L. Wertenbaker
Deputy Commander	Colonel John A. O'Mara
Executive	Colonel Malcolm D. Seashore
Administrative Officer	Colonel Frank C. Auten, Jr. <sup>9</sup>
Internal Security Officer	Captain James C. Paschal <sup>10</sup>
Scientific Advisor	Mr. A. Francis Arcier
Civilian Assistant	Mr. John S. Honaker

(Uncl)

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<sup>9</sup> Temporary Overage. Position will not be continued when present incumbent leaves.

<sup>10</sup> Position calls for rank of major,

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II. ACTIVITIES, EVENTS, AND PROBLEMS

(Uncl) OVERSEAS VISIT. Colonel Wertenbaker, accompanied by the Administrative Assistant, Captain Hampton, departed on 7 February 1954, to visit Frankfurt, Munich, and Wiesbaden, Germany; Salzburg, Lins and Vienna, Austria; Ankara, Turkey; Rome, Italy; London, England; and Paris, France, for purposes of familiarization with the various people and installations visited and the operations of the Air Technical Liaison Officer Program of the ATIC in these countries.<sup>11</sup> In the Austrian offices, Colonel Wertenbaker investigated certain organizational and operational problems which involved ATIC policy. Colonel Wertenbaker and Captain Hampton returned to duty on 5 March 1954. Colonel O'Mara was in command during Colonel Wertenbaker's absence.<sup>12</sup>

(Uncl)

(Uncl) NOTEWORTHY VISITORS:

On 18 January 1954, a former Commander of the Air Technical Intelligence Center, Colonel Harold E. Watson, visited in the Office of the Commander and the Technical Analysis Division to discuss intelligence matters of a classified nature. (Uncl)

Brigadier General Jack W. Wood, Chief, Inspection Services Division, the Inspector General, USAF, visited the Commander, ATIC, on 27 April 1954, and toured the foreign equipment display of the Center. (Uncl)

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<sup>11</sup>

Hq 1125th USAF FAG (ATIC): Ltr Order 92, 3 Feb 54.

<sup>12</sup>

Hq 1125th USAF FAG (ATIC): GO 4, 8 Feb 54.

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Mr. Karl-Arvid Norlin, Vice-President of the Enskilda Banken of Sweden, and Major Gosta Hellstrom of the Royal Swedish Air Force visited the ATIC on 11, 12, and 13 May 1954. The visitors toured the AF Museum and Wright Air Development Center on 12 May. On 13 May, the visitors, accompanied by Colonel Wertenbaker and Mr. Arcier, visited the National Cash Register Co. in Dayton. Mr. Norlin and Major Hellstrom, in company of Mr. Arcier, attended the General Motors Wonderama during the afternoon 13 May. (Uncl)

Brigadier General Millard Lewis, Deputy Director of Intelligence, visited the ATIC on 25 May 1954, for the first time. The purpose of his visit was familiarization with ATIC facilities and activities. (Uncl)

Brigadier General Edward H. Porter visited the ATIC on 14 May 1954, for the purpose of familiarizing himself with the functions, activities, and operations of the Center, prior to his departure for assignment as Assistant Chief of Staff, Intelligence, at Headquarters, USAFE, Wiesbaden, Germany. (Uncl)

Four members of the aeronautical industry of Germany, Mr. Werner Boie, Dr. Gustav Benesch, Mr. Peter Friedrich zur Meuhlen, and Mr. Herbert Rogall, visited the ATIC and other activities at Wright-Patterson Air Force Base on 30 June 1954 for purpose of general orientation. The German nationals were accompanied by a civilian escort, Mr. Henry Dolstra, and a military escort, Major John Westenhoff of this Center. (Uncl)

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(Uncl) PROJECT PLANNING AUTHORITY (PPA). At the beginning of this period, the PPA had aligned its goals with those of the Directorate of Intelligence, USAF, had developed a method of operation, and was ready to proceed with problems of ATIC requiring attention on a priority basis. However, during this period, little significant progress was made. Although the basic principle and goals of the PPA have been determined to be sound, the reluctance of its members to seek a solution to the problem at hand by reasonable compromise has stagnated its efforts. The fault of the PPA, as organized at the present time, is a lack of sufficient authority to direct the efforts of the operating divisions effectively. (Uncl)

(Uncl) REORGANIZATION PLAN: Reorganization of the Center is being planned to incorporate the principle of the PPA and provide means for correcting its deficiencies. It is believed this plan will result in better operation and management. (Uncl)

(Uncl) AWARDS. General E. W. Rawlings, Commander of the Air Materiel Command, presented the Meritorius Civilian Service Award to Mr. A. Francis Arcier at a ceremony held in the Air Room, AMC, on 28 January 1954. This award is the second highest Air Force civilian award, and was granted to Mr. Arcier for his thorough knowledge, understanding, and application of the aeronautical, scientific, and technical program which has resulted in the improvement and advancement of the Intelligence program of the United States Air Force. (Uncl)

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## MISCELLANEOUS ACTIVITIES

### TROOP COMMANDANT AND HEADQUARTERS SQUADRON SECTION

The Troop Commandant's Office together with the Headquarters Squadron Section is responsible for the administrative functions concerning all airmen assigned or attached to the 1125th USAF Field Activities Group (ATIC), including maintenance of records, welfare, housing, and supply. The Troop Commandant serves as Commander, Headquarters Squadron Section, which is divided into four sections: administrative, supply, morning report, and airman records. (Uncl)

On 1 January 1954, the Troop Commandant's Office and Headquarters Section were manned as the following figures indicate: eight positions authorized, five persons assigned, three positions vacant. (Uncl)

On 6 May 1954, responsibility for the administration of airman classification was transferred from the Personnel Branch of the Policy and Management Office to the Troop Commandant's Office. Authorization for one position was transferred with this function. (Uncl)

At the end of the period, nine positions were authorized and 11 persons were assigned. The two surplus personnel were awaiting reassignment. (Uncl)

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During the period, three changes were made in AFSC's in conformation with AFM 35-1 and duties of the positions. (Uncl)

1st Lt. Robert L. Summers was the Troop Commandant throughout the period. (Uncl)

Activities during the period were chiefly concerned with improvement of the Squadron Area and supplemental inspections. (Uncl)

Both office and recreational areas were improved. Funds were obtained from the non-appropriated Welfare Fund, materials and supplies from the Wright-Patterson Air Force Base, while labor was contributed by the airmen themselves. (Uncl)

A program of monthly inspections conducted by ATIC staff officers was inaugurated in January. These inspections are in addition to those conducted by the Wright-Patterson Air Force Base Commander and by the Wright-Patterson Air Force Base Plaque Team. (Uncl)

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USAF SECURITY SERVICES DETACHMENT

This detached activity from Brooks Field, Texas, provides the Air Technical Intelligence Center with expeditious and secure means for receipt, storage, transmission, and distribution of intelligence material not handled through other channels. (Uncl)

On 6 May 1954, Captain Walter S. Mazor<sup>1</sup> replaced Lieutenant John Fletcher as the officer in charge. Mr. Fred O. Kobernus continued to be the ATIC liaison representative to this activity. (Uncl)

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<sup>1</sup>  
Hq 6920 Security Group, APO 73: SO 87, 23 April 1954.

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# STAFF OFFICES

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POLICY AND MANAGEMENT OFFICE

I. ORGANIZATION, FUNCTIONS, AND KEY PERSONNEL

The Policy and Management Office advises the Commander and staff on management policies, plans, and practices; reports on the efficiency and effectiveness of operation; provides the Center with budget, cost accounting, and other financial services; performs the personnel functions for the Center; controls manpower distribution; plans and recommends organizational structure, placement of functions, and Center-wide standing operating procedures. This office is divided into three branches: Budget and Accounting, Personnel, and Management Analysis. (Uncl)

At the beginning of the period, this office was authorized 14 civilians, 6 officers, and 8 airmen. All except two airman positions were filled. Key personnel were as follows:

Chief, Policy and Management Office	Colonel Dane F. Justice, Sr.
Deputy Chief (a temporary position)	Lt. Col. William L. Ewbank, Jr.
Contract Administrator	Major George G. Hedblom
Chief, Budget and Accounting Branch	Captain George L. Connors
Chief, Personnel Branch	Major Alec H. Lester
Chief, Management Analysis Branch	Vacant

(Uncl)

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During the period, the function of processing personnel for overseas assignment was transferred from the former ATL Program Branch of the Technical Requirements Division to the Personnel Branch.<sup>1</sup> Two civilians were transferred with the function and the ATLO Processing Section was temporarily established until arrangements could be made to integrate these duties into the regular duties performed by the Military and Civilian Personnel Sections of this branch. By the end of June, this integration had been accomplished, the temporary ATLO Processing Section was scheduled to be dissolved and one civilian position was to be declared surplus. (Uncl)

The work of airman classification was transferred to the Troop Commandant in May. One airman was transferred with the function.<sup>2</sup> (Uncl)

On 21 March 1954, Lt. Colonel Emy-Lee N. Gardner joined the staff as Chief of the Management Analysis Branch.<sup>3</sup> Lt. Colonel Gardner came to the Air Technical Intelligence Center from Headquarters 1st Air Force (Continental Air Command), Mitchell Air Force Base, New York, where she was Chief of the Reserve Records Division, Directorate of Reserve Administration. (Uncl)

On 5 May 1954, Lt. Colonel Ewbank, Jr., was transferred to the University of Massachusetts, Amherst, Massachusetts, as an instructor

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<sup>1</sup> Hq 1125th USAF FAG (ATIC): GO 13, 3 May 54.

<sup>2</sup> Hq 1125th USAF FAG (ATIC): PAM 30, 21 May 54.

<sup>3</sup> Hq 1125th USAF FAG (ATIC): PAM 19, 5 Apr 54.

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in military science for the ROTC, after a six-weeks period at the Air University, Maxwell AFB, Montgomery, Alabama, taking the academic instructor's course.<sup>4</sup> Upon his departure, the temporary position of Deputy Chief of the Policy and Management Office was abolished. (Uncl)

No further changes occurred in organization, functions, manpower, or key personnel. At the end of the period, authorized manpower consisted of 16 civilians, 6 officers and 7 airmen. Two airman positions were vacant. Key personnel were as follows:

Chief, Policy and Management Office	Colonel Dane F. Justice, Sr.
Contract Administrator	Major George G. Hedblom
Chief, Budget and Accounting Branch	Captain George L. Connors
Chief, Personnel Branch	Major Alec H. Lester
Chief, Management Analysis Branch	Lt. Col. Ray-Lee N. Gardner.

(Uncl)

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<sup>4</sup> Hq 1125th USAF FAG (ATIC): SO 38, 1 Apr 54.

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II. ACTIVITIES, EVENTS AND PROBLEMS

ATIC FINANCIAL PROGRAMS

(Uncl) Budget Estimates, FY 1956

The budget estimates for the fiscal year 1956 submitted for the Air Technical Intelligence Center were as follows:

Project 481, "Command Administration"	\$1,715,950
Project 731, "Contingencies"	2,439,000
Project 443, "Schools and Training"	45,253
Sub-Project 531.10, "PCS Movement of Military Personnel with Major Commands in Zone of Interior"	6,035
	<u>\$4,206,238</u>

(~~CONFIDENTIAL~~)  
 (unclas)

Project 481 funds, which provide for civilian payroll, travel, and miscellaneous operating expenses, were based on an estimated full time employment of 325 civilians throughout the fiscal year. Estimates of other operating requirements provided for the Air Technical Intelligence Center by Headquarters, Air Materiel Command and by the Wright-Patterson Air Force Base were furnished these two organizations for incorporation in their budget estimates. (~~CONFIDENTIAL~~)

The estimate for Project 731 funds was \$11,000 under the budget funds for FY 1954. (~~CONFIDENTIAL~~)

(unclas)



~~CONFIDENTIAL~~

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This was the first time that Project 443 and Sub-Project 531.10 funds were included in the ATIC budget estimate. Project 443 funds, which provide for the operation of the USAF Technical Intelligence School by the Air Technical Intelligence Center, will be used for salaries for civilian faculty members, for faculty travel, and for TDY travel of student officers and airmen from participating commands to attend courses at this school. Civilian payroll and faculty travel formerly were covered by Project 481 funds. (Uncl)

Project 560, "Civilian Clothing Allowances for Airmen on Specific Assignments," was deleted from the ATIC budget estimate because this project was discontinued as a controlled allotment, effective 1 July 1954, and will henceforth be paid from an open allotment under Project 511, "Military Personnel Appropriation." (Uncl)

(Uncl) Financial Plans, FY 1954 and 1955. Financial plans for fiscal year 1955 provide for a 3.6 percent increase in Project 481 funds over total obligations for fiscal year 1954. This increase is based on the maintenance of an average civilian strength of 315.9 persons. A reduction of \$461,930 in Project 731 funds was included in the 1955 plan because of rephasing of the Battelle Memorial Institute contract to permit refinancing of services on a fiscal year basis. (~~CONFIDENTIAL~~)

(unclas)

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(Uncl) Appropriation Accounting. Preparations have been completed for assuming the function of accounting for 731 funds, 1 July 1954. (Uncl)

(Uncl) Cost Accounting:

Cost accounting services to the divisions were extended by providing an additional ATIC Manhour Utilization Report to the Technical Analysis Division. In this report, manhours are reported through section level according to the mission index of that division. (Uncl)

ATIC Form 510, "Monthly Job Time Report," used by the individuals to report time spent on projects for costing purposes, was revised to provide more columns for projects. The form was further improved by including instructions for reporting on the back of the form, thus eliminating the necessity for referral to a separate instruction. (Uncl)

(Uncl) STATUS OF FUNDS. The status of ATIC funds authorized for fiscal year 1954 is as follows:

Project 731 - Contingencies

Annual Budget Authorization	\$2,450,000
Total Allotment	2,450,000
Total Commitments	2,386,049
Total Obligations	2,283,826
Percent Utilization	93.2

Project 481 - Command Administration

Annual Budget Authorization	\$1,697,007
Total Allotment (21 May 54)	1,697,007
Total Obligations	1,669,156
Percent Utilization	98.4

(Uncl) (unclas)



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(Uncl) DISTRIBUTION OF MANPOWER AUTHORIZATIONS

1 Jan 54

<u>Component</u>	<u>Total</u>	<u>Civilian</u>	<u>Officers</u>	<u>Airmen</u>
ATI - Office of the Commander	9	5	3	1
ATII - Inspector Generals Office	12	4	5	3
ATIG - Adjutant's Office	30	17	2	11
ATIM - Policy and Management Office	28	14	6	8
ATIX - Air Intelligence Office	16	9	2	5
ATIR - Technical Requirements Div	174	49	97	28
ATIA - Technical Analysis Div	163	111	44	8
ATIS - Technical Services Div	194	118	36	40
ATITC - Troop Commandant	8	0	1	7
	<u>634</u>	<u>327</u>	<u>196</u>	<u>111</u>
TOTAL	634	327	196	111

30 Jun 54

ATI - Office of the Commander	13	8	4	1
ATIG - Adjutant's Office	30	17	2	11
ATIM - Policy and Management Office	29	16	6	7
ATIX - Air Intelligence Office	14	7	2	5
ATIR - Technical Requirements Div	220	57	114	49
ATIA - Technical Analysis Div	168	114	44	10
ATIS - Technical Services Div	146	107	19	20
ATITC - Troop Commandant	9	0	1	8
Manpower Pool	5	1	4	0
	<u>634</u>	<u>327</u>	<u>196</u>	<u>111</u>
TOTAL	634	327	196	111

(Uncl)

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(Uncl) CONTRACT ADMINISTRATION. There was no change in the conduct of this activity. Since this activity is now operating on a routine basis, it will be dropped from the ATIC history. (Uncl)

(Uncl) ATIC MANPOWER:

(Uncl) Authorizations. On 1 January 1954, the Air Technical Intelligence Center was authorized a total of 634 personnel: 196 officers, 111 airmen, and 327 civilians. The military grade ceiling was 12 general officers and colonels, 27 lieutenant colonels, 44 majors, 75 captains, 38 lieutenants, 0 warrant officers, 23 master sergeants, 23 technical sergeants, 20 staff sergeants; 21 airmen 1st class, 22 airmen 2nd class, and 2 airmen 3rd class. Civilian positions were 312 graded and 15 wage-board. No change occurred in manpower authorization during the period.<sup>5</sup> (unclas)

(Uncl) Strength. At the beginning of the period, 163 officers, 102 airmen, and 301 civilians were on the rolls. At the end of the period, 162 officers, 113 airmen, and 299 civilians. Officer strength was maintained at 83 percent of authorization and airman strength at 98 percent. (unclas)

<sup>5</sup> Hq USAF, Dir of Manpower and Organization: Hq Cmd, USAF, Hq 1125th USAF FAG (ATIC), Non-T/O Personnel Authorization Table (AF Form 256), Jan 54, and Hq USAF Dir of Manpower and Organization, Non-T/O Personnel Allotment Voucher (AF HQ Form O-85), 88/4-15, Air Tech Int Center FE, 14 May 54. A break-down of manpower authorization is tabulated on the following page.

[REDACTED]

(Uncl) Turnover. During the period, 34 officers left the Center and 31 were processed in; 16 airmen left and 27 reported in; 39 civilians left and 37 were added to the rolls. Reasons for leaving were as follows:

5 officers and 8 airmen separated from the service.

29 officers and 8 airmen were reassigned to other duty stations.

18 civilians resigned from government service.

15 civilians transferred out of the ATIC.

1 civilian was separated through RIF action.

1 civilian was separated for disqualification.

4 civilians were placed in leave-without-pay status. (Uncl)

(Uncl) Other Personnel Changes. In addition to the separations and accession actions, 30 civilian employees, 16 officers, and 12 airmen were promoted; 8 civilians were changed to lower grade, and 22 civilians were reassigned without change in grade. (Uncl)

(Uncl) ATIC POSITION STRUCTURE. During the period, 36 new civilian positions were established, 42 were cancelled, 18 were reclassified or changed in grade, and 7 were changed in title without change in grade. Based on the 327 positions authorized, this represents a 31.5 percent change in position structure. (Uncl)

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(Uncl) ATIC POSITION AUDITS. The annual audit of civilian positions, required by law,<sup>6</sup> resulted in 24.4 percent change in grade structure being reported. Of the 340 positions<sup>7</sup> existing at the time of the audits, which extended from 1 July 1953 through 30 June 1954, 26 positions or 7.6 percent were reported as requiring upgrading, 57 positions or 16.8 percent as requiring downgrading, and 257 or 75.6 percent as requiring no change in grade. Grade changes broken down according to general job category are as follows:

	<u>Clerical</u>	<u>Administrative</u>	<u>Technical</u>	<u>Wage Board</u>
Total Number of Positions Audited	185	13	126	16
Upgraded	8 (4.3%)	0	18 (14.3%)	0
Downgraded	53 (28.6%)	8 (61.5%)	6 (4.8%)	0

(Uncl)

### (Uncl) ATIC ORGANIZATION:

(Uncl) Major Components. At the beginning of the period, the Air Technical Intelligence Center was organized into six offices and three divisions, with internal organization for each as shown in the chart included in the previous edition of the History of the Air Technical Intelligence Center.<sup>8</sup> Major components were the Office of the Commander,

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<sup>6</sup> Public Law 253, 82nd Congress, Section 1310(d).

<sup>7</sup> Includes authorized overage positions.

<sup>8</sup> ATIC Organizational Directory Chart, 1 November 1953.

the Troop Commandant, the Adjutant's Office, the Policy and Management Office, the Office of the Inspector General, the Air Intelligence Office, the Technical Analysis Division, the Technical Requirements Division, and the Technical Services Division. During the period, only one change was made in major components. On 3 May 1954, the Inspector General's Office was discontinued. <sup>9</sup> (Uncl)

(Uncl) Changes Within Components:

On 5 February 1954, the ATI Indoctrination Branch was transferred from the Technical Services Division to the Technical Requirements <sup>10</sup> Division. (Uncl)

Effective 15 March 1954, the Reproduction and Graphic Services Section of the Documents Processing Branch, Technical Services Division, was established as a separate branch composed of two sections: <sup>11</sup> Reproduction Section and Graphic Data Section. On this same date, the Flight Operations Office was established as a separate entity in the Technical Services Division and the Documents Repository was made a separate section in the Documents Processing Branch of this same <sup>12</sup> division. (Uncl)

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<sup>9</sup> Hq 1125th USAF FAG (ATIC): GO 13, 3 May 1954.

<sup>10</sup> Hq 1125th USAF FAG (ATIC): GO 3, 5 Feb 1954.

<sup>11</sup> Hq 1125th USAF FAG (ATIC): GO 8, 15 Mar 1954.

<sup>12</sup> Ibid.

On 3 May 1954, concurrent with discontinuance of the Inspector General's Office, the Internal Security Branch of that office was transferred to the Office of the Commander and made directly responsible to the Executive.<sup>13</sup> (Uncl)

Also on 3 May 1954, the following changes were made in the Technical Requirements Division. The ATL Program Branch was dissolved, a part of its functions being transferred to the Policy and Management Office and the remainder to Technical Requirement's Collection Control Branch which was redesignated "Control Branch."<sup>14</sup> (Uncl)

Concurrent with transfer of functions from the ATL Program Branch, the ATLD Processing Section was established in the Personnel Branch of the Policy and Management Office to absorb the transferred functions.<sup>15</sup> (Uncl)

(Uncl) ATIC ORGANIZATIONAL AND DIRECTORY CHART. One revision of the ATIC Organizational and Directory Chart was published 1 March 1954. Another revision reflecting the organization as of 30 June 1954 is included in this installment of the Center History. (Uncl)

(Uncl) SURVEY OF SEPARATED PERSONNEL. A study of the questionnaires received during the first year of this survey<sup>16</sup> was completed. The

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13

Hq 1125th USAF FAG (ATIC): GO 13, 3 May 54.

14

Hq 1125th USAF FAG (ATIC): GO 13, 3 May 54.

15

Ibid.

16

Policy and Management Office, "Report of ATIC SURVEY OF Separated Personnel, First Year: January - December 1953."

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survey proved to be a valuable means of determining factors influencing employee morale that needed correction and in revealing progress that was being made in improvement of management and operation of the Air Technical Intelligence Center. It is planned to continue the survey.

(Uncl)

(Uncl) PERFORMANCE REQUIREMENTS PROGRAM. In February, as result of a suggestion submitted by a civilian supervisor, a series of supervisory conferences were held to discuss and evaluate the ATIC performance requirements program. Following the meetings, noticeable improvement was achieved in the standards for job performance developed by supervisors and in the performance evaluation conferences held with individual employees. The civilian supervisor, Mr. Ralph W. Woodall, who suggested these conferences, was granted a cash award through the AF Incentive Awards Program. (Uncl)

(Uncl) ATIC PROJECT CONTROL SYSTEM. A comprehensive study of the project control system that has been in operation for the past three years was completed in April. Recommendations for changes in the present system to include all phases of workload control were submitted to the Commander in May and are under consideration. <sup>17</sup> These recommendations include plans for a change in organizational structure to provide a framework for an effective work-management system. (Uncl)

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Policy and Management Office: "ATIC Work Management System,"  
14 May 1954

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(Uncl) DEVELOPMENT OF SUPERVISORY PERSONNEL. Prior to the 15 May annual rating date for civilian employees, conferences on the AF Performance Rating System, conducted by the Central Civilian Personnel Office, were attended by all ATIC supervisors. (Uncl)

(Uncl) MONTHLY MEETINGS OF PERSONNEL. No meetings were held during this period. (Uncl)

(Uncl) ATIC REPORTS CONTROL SYSTEM. The question of the ATIC reports control system was decided by the Commander in June 1954. Only those reports required of the Center by outside activities on a recurring basis are to be controlled. Reports of this category classed as exempted by the AF reports control system are to be included. The Adjutant's Office is to establish a suspense file for these reports and is to take action to insure prompt reporting. The Adjutant's Office is also to screen incoming requests for new reports to insure that proper reports control procedures have been followed. The Policy and Management Office is to conduct a semi-annual survey of reporting requirements and to take action to reduce the administrative load imposed by reporting, whenever possible. Records initially established for reports control were transferred to the Adjutant's Office for use in maintenance of the system. (Uncl)

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18  
Disposition Form, "ATIC Reports Control System (15 Dec 53)," Cmt 3, ATI to ATIM, thru ATIG, 16 Jun 54.

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## ADJUTANT'S OFFICE

## I. ORGANIZATION, FUNCTIONS, AND KEY PERSONNEL.

The Adjutant's Office provides administrative services for the Center. This office publishes and distributes official communications and directives from the Commander, issues orders and authorized publications; processes mail and messages; receives, stores, and dispatches Top Secret and Registered Documents; controls correspondence; controls the maintenance and disposition of records; operates the ATIC forms management program; and maintains central files of records for the Office of the Commander. During the period, two new functions were added: maintenance of an authority library and operation of the ATIC reports control system. (Uncl)

The Adjutant's Office is divided into four branches: Administrative, Mail, Records, and Registered Documents. This office is authorized two officers, 11 airmen, and 17 civilians. Three officers, 10 airmen, and 16 civilians are assigned. (Uncl)

Key personnel throughout the period were:

Adjutant	Major W. K. Sargeant
Assistant Adjutant	CWO Rodney C. Schum
Top Secret Control Officer	1st Lieutenant Barbara H. Connors
Records Officer	Miss Marjorie M. Kerrigan

(Uncl)

Lieutenant Conners is chief of both the Administration Branch and the Registered Documents Branch; CWO Schum supervises the Mail Branch; Miss Kerrigan heads the Records Branch. (Uncl)

## II. ACTIVITIES, EVENTS, AND PROBLEMS

### (Uncl) PUBLICATIONS:

(Uncl) Authority Library. Upon deactivation of the Office of the Inspector General,<sup>1</sup> certain phases of the function of maintenance of an authority library were transferred without additional personnel to the Adjutant's Office. This increased workload consisted of requisitioning of Technical Orders and the maintenance of superseded or rescinded administration publications. By 28 May 1954, filing cabinets and contents had been moved from the Inspector General's Office and had been incorporated into the Adjutant's publication files. (Uncl)

(Uncl) Requirements Tables. Requirements tables of AF, AMC, and W-PAFB publications to be furnished ATIC components on automatic distribution were revised and submitted to the Base supplying activity for the period 1 June - 1 September, 1954. Further refinements were made in ATIC requirements to conform with justifiable need for publications of this type, thereby eliminating waste of publications and conserving filing space. (Uncl)

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<sup>1</sup>

Hq 1125th USAF FAG (ATIG): OO 13, 3 May 54

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(Uncl) ATIC Administrative Publications. The procedure of semi-annual review of ATIC administrative publications, initiated during the preceding period,<sup>2</sup> was continued and was for the most part, effective. However, pending policy decisions and organizational changes have hampered somewhat the expeditious revision of some administrative publications. During the period, two bi-monthly revisions to the ATIC publications index were published, 19 April and 18 June, 1954, together with seven new ATIC office instructions, 26 revisions, and one numbered memorandum. Seven non-current office instructions were rescinded. (Uncl)

(Uncl) Other ATIC Publications. During the six-months period, the Adjutant's Office published 84 Special Orders affecting 320 individuals, 530 Letter Orders and Travel Orders affecting 540 persons, 16 General Orders, and 126 Daily Bulletins. (Uncl)

(Uncl) FORMS MANAGEMENT. During the period, 17 new forms were approved and 14 forms were cancelled; 10 were revised and 53 reprinted without revision. (Uncl)

(Uncl) REPORTS CONTROL. Late in June, work was started to establish a suspense file for reports to be controlled.<sup>3</sup> This file had not been completed by the end of the reporting period. (Uncl)

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<sup>2</sup> History of the Air Technical Intelligence Center, 1 July - 31 Dec, 1953, p 32.

<sup>3</sup> See Policy and Management Office History, p 28 , this edition.

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(Uncl) MAIL PROCESSING. Incoming mail totaled 33,568 pieces; outgoing mail, 216,621 pieces. These figures include official correspondence and messages, personal mail, and documents. (Uncl)

(Uncl) RECORDS MANAGEMENT:

The Center continued to operate under a decentralized and standardized filing system. Conversion to the AF subject classification system was, for the most part, completed. Disposition schedules required much revision during the period because of changes in organizational structure and transfer of functions between activities. (Uncl)

(Uncl) Records Disposition. At the end of the period, 4,382 cubic feet of records remained, 928 cubic feet having been destroyed during the period. The balance on hand represents 19 cubic feet less than the volume on hand at the beginning of the period. (Uncl)

(Uncl) Retirement Problem. Very few records were retired during the period, chiefly because of the problem of listing Secret and Top Secret material. The large volume of Secret material to be retired imposes an excessive workload, were each piece to be listed separately. Proposal was made to the Headquarters USAF Records Management Officer to solve the problem by binding file folders and listing the folder as a bound document. This proposal was tentatively disapproved but has been referred to Headquarters USAF Security people for final decision. Meanwhile, retirement action has been suspended. (Uncl)

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(Uncl) Contractor Records. The Headquarters USAF Records Management Office has instructed the Center to account for records transferred to and being maintained by one of its prime contractors,<sup>4</sup> who is engaged in establishing a technical intelligence file for the Center's use.<sup>5</sup> Approximately 1300 cubic feet of these records are located at the contractor's site. In February, the ATIC Records Officer inspected these records, and requested the Technical Analysis Division to include them on that division's disposition schedules. This action has not been completed because of numerous difficulties that have arisen. The problem has been referred to the Office of the Commander and is under consideration. (Uncl)

(Uncl) Microfilming Project OIN-1B-54. At the request<sup>6</sup> of the Headquarters USAF Records Management Officer, a survey was made of ATIC microfilming operations. Report of this survey was approved<sup>7</sup> and the operation assigned microfilming project number OIN-1B-54. (Uncl)

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<sup>4</sup> Memo from Hq USAF Records Management Officer, 14 June 1954, subject: "Records Disposition Schedule."

<sup>5</sup> Battelle Memorial Institute, Columbus, Ohio

<sup>6</sup> Cmt #1, R&R, 1 Oct 53, from Hq USAF Records Management Officer, subject: "Survey of Government Microfilming Operations."

<sup>7</sup> R&R, Cmt #7, 30 Apr 54, from Hq USAF Records Management Officer, subject: "Approval of Microfilm Project at ATIC."

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(Uncl) TOP SECRET AND REGISTERED DOCUMENTS. When the Center assumed its own Top Secret control functions, 13 July 1953, the transfer of documents from the ANC Top Secret control was begun. During this period, approximately 3,000 documents were transferred and are being reviewed for downgrading, retirement, and destruction. Inadequacy of storage facilities is presenting a problem. (Uncl)

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INSPECTOR GENERAL'S OFFICE

I. ORGANIZATION, FUNCTIONS, AND KEY PERSONNEL

The primary functions of the Inspector General's Office were to inspect activities of ATIC, advising the Commander of the effectiveness and efficiency of Center activities; to hold personal conferences for assigned personnel; to conduct an adequate internal security program; and to conduct investigations and administrative inquiries for the Commander. (Uncl)

The Inspector General's Office was organized into Inspector's Branch, the Internal Security Branch, and the personnel staff of the Inspector General. Manpower authorized was five officers, three airmen, and four civilians. Actual strength for the period, however, was three officers, two airmen, and four civilians. Colonel Frank C. Auten, Jr., was the Inspector General; Major Coleman D. Kuhn, Inspector; and Captain James C. Paschal, Internal Security Officer. (Uncl)

The Inspector General's Office continued with its assigned functions and personnel until 3 May 1954. On this date the office was disbanded.<sup>1</sup> The Internal Security Branch with its functions and personnel were transferred to the Office of the Commander and placed under the jurisdiction of the Executive. The authority library was transferred to the Adjutant's Office. The other elements of the Inspector

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<sup>1</sup> Hq 1125th USAF FAG (ATIC): CO 13, 3 May 54

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General's Office were abolished. The Inspector General was assigned temporarily to the Office of the Commander as Executive.<sup>2</sup> (Uncl)

## II. ACTIVITIES, EVENTS, AND PROBLEMS

(Uncl) ADMINISTRATIVE INSPECTIONS. Administrative Inspections were completed for the following activities: Aircraft and Propulsion Branch, Technical Analysis Division; Executive Offices of Technical Analysis Division; Collection Control Branch, ATL Program Branch, and ATI Indoctrination Branch, all of Technical Requirements Division. (Uncl)

(Uncl) PERSONAL CONFERENCES AND INVESTIGATIONS. Five official complaints and numerous informal requests for information were disposed of during the period. One formal and four informal investigations were conducted. Three cases were referred to OSI and one to USAFE for investigation. (Uncl)

### (Uncl) SECURITY PROGRAM:

Clearances were requested for 89 new employees of the Center. The Base Provost Marshal granted 105 clearances based on previous requests. Three new employees were denied clearance because of derogatory information in their files. Close liaison was maintained with the Base Provost Marshal and OSI to protect ATIC from persons who are abnormal security risks. (Uncl)

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<sup>2</sup>

Hq 1125th USAF FAG (ATIC): GO 13, 3 May 54

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Additional emphasis was placed on the program of monthly indoctrination of Center personnel by Unit Security Officers. Several new or revised office instructions were issued to bring Center operating procedures into line with the revised AFR 205-1. The turnstiles and reception desk at the main entrance of ATIC were rearranged to provide a more orderly flow of traffic during the rush periods and to enhance the appearance of the entrance area. An electric klaxon was installed in Building 263 to provide the receptionist with the means of summoning aid discreetly in the event of attempted forcible entry. The bell button at the entrance to Building 263 was connected to the time clock bell system, making it possible for the night civilian guard to hear the door bell when it rings while he is making periodic checks of the building. (Uncl)

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**AIR INTELLIGENCE  
OFFICE  
(ATIX)**

## THE AIR INTELLIGENCE OFFICE

## I. ORGANIZATION, FUNCTIONS, AND KEY PERSONNEL

The functions of the Air Intelligence Office are to provide intelligence services for the Air Materiel Command, the Wright Air Development Center, and other components of the Department of Defense located at the Wright-Patterson Air Force Base; to prepare and disseminate air technical intelligence digests and similar miscellaneous periodicals; and to conduct the previously established "ATIC Report Clinic" program.<sup>1</sup> (Uncl)

The Air Intelligence Office is organized into two branches: the Research and Publications Branch, which is responsible for the publication of periodicals and special reports, and the Briefing Branch, responsible for the dissemination of intelligence through oral briefings.<sup>2</sup> (Uncl)

Key personnel and their positions at the beginning of the period were:

Chief, Air Intelligence Office	Major Arthur A. Stanley
Chief, Research & Publications Branch	Mr. Lee H. Strahl
Acting Chief, Briefing Branch	M/Sgt Robert A. Brown

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<sup>1</sup> History of the Air Technical Intelligence Center, 1 Jul - 30 Jan 54 pp 88-90.

<sup>2</sup> Hq 1125th USAF FAG (ATIC): GO 14, 16 Oct 53.

Manpower allotment for the Air Intelligence Office calls for 14 personnel: 7 civilian and 7 military. Thirteen persons were assigned at the beginning of the period, 14 at the end. (Uncl)

On 26 January 1954, Lieutenant Colonel John L. Brownell was assigned as Chief of the Office, succeeding Major Arthur A. Stanley, who left on 2 February 1954 to attend the Rhode Island School of Design. Lieutenant Colonel Brownell came to the Air Intelligence Office from the position of Chief, Air Technical Liaison Program, Technical Requirements Division. On 17 February 1954, 2nd Lieutenant Charles R. Nicholas was assigned to the office of the chief, Air Intelligence Office, where he is now serving as Intelligence Officer and has taken over the duties of deputy chief, Air Intelligence Office. Lieutenant Nicholas came to the Air Intelligence Office from the Flying Training Air Force where he had been undergoing pilot training. On 1 May 1954, Master Sergeant Robert A. Brown was transferred to the ATL program for overseas assignment. The position that he had held in the Air Intelligence Office remained vacant until 23 June 1954, when Mr. Theodore J. Heatt was assigned as chief of the Briefing Branch. Mr. Heatt came to this assignment from commissioned military service in the USAF. No other changes occurred in functions, organizations, manpower, or key personnel. (Uncl)

At the end of the period key personnel were:

Chief, Air Intelligence Office	Lt Colonel John L. Brownell
Deputy Chief	2nd Lt Charles R. Nicholas
Chief, Research and Publications Branch	Mr. Lee H. Strahl
Chief, Briefing Branch	Mr. Theodore J. Heatt

(Uncl)

A move of the physical plant early in June to another location within the Center has resulted in better working conditions and improved operation for this office. (Uncl)

## II. ACTIVITIES, EVENTS, AND PROBLEMS

The Air Intelligence Office has continued the activities that were in progress at the close of the foregoing reporting period, and has started several new activities. (Uncl)

Activities continued were oral briefings, publication of ATIC Bulletin, and the ATIC Report Clinic.<sup>3</sup> (Uncl)

Four new reports were initiated: a report to the Chief of Staff of the United States Air Force, covering air technical intelligence information and related data of particular significance; a special report for the Assistant Secretary of Defense (R&D); two periodicals, one entitled the "ATIC AMC Briefer," covering information of particular

<sup>3</sup>

History of Air Technical Intelligence Center, 1 Jul 53 - 31 Dec 53, pp 87-89.

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significance to the Air Materiel Command, the other, "ATIC WADC Briefer," of interest to the Wright Air Development Center. The two new periodicals were issued weekly; the reports to the Chief of Staff and the Assistant Secretary of Defense (R&D), whenever issuance was warranted by the receipt and valuation of suitable information. (Uncl)

Conferences were held with the laboratories of the Wright Air Development Center in an effort to clarify WADC's requirements for intelligence information so that particular emphasis could be given to technical intelligence information affecting the missions of the various WADC laboratories. (Uncl)

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**TECHNICAL SERVICES  
DIVISION  
(ATIS)**

## TECHNICAL SERVICES DIVISION

## I. ORGANIZATION, FUNCTIONS, AND KEY PERSONNEL

In the first half of the year 1954, three major changes were made in the organization of the Technical Services Division — one change which had no effect on the functions of the division, except to promote the efficiency of operations, and two changes which had no appreciable effect on the functions of the Center, since the chief factor involved was a transfer of functions from the division to other agencies serving the Center. With the exception of these three changes, the functions and organizational structure of the Technical Services Division remained substantially as they had been before. <sup>1</sup> (Uncl)

The changes were, in their chronological order: first, the transfer <sup>2</sup> of the ATI Indoctrination Branch to the Technical Requirements Division; second, the dissolution of the Biographic and Facilities Group in the Document Services Branch; <sup>3</sup> and, third, the advancement of Reproduction and Graphic Services from section to branch level. <sup>4</sup> (Uncl)

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<sup>1</sup> History of the Air Technical Intelligence Center, 1 January - 30 June 1953 p. 50.

<sup>2</sup> Hq 1125th USAF FAG (ATIC): GO 3, 5 February 1954.

<sup>3</sup> This dissolution was effected 1 March 1954 under an order contained in Comment No. 5, Project Report and Termination Form C-27 (on Project No. 50408), dated 16 February 1954.

<sup>4</sup> Hq 1125th USAF FAG (ATIC): GO 8, 15 March 1954.



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The transfer of the ATI Indoctrination Branch (a transfer of mission, functions, personnel, and equipment en masse) was accomplished in consideration of the close relationship between the functions of training, on one hand, and the mission of the Technical Requirements Division, on the other. In order to meet its responsibilities, the Technical Requirements Division needed to exercise control over the training of air technical intelligence personnel used in the Technical Requirements program. The transfer of the ATI Indoctrination Branch bodily, with its training function, provided the Technical Requirements Division with the opportunity to exercise the necessary control. (Uncl)

Similarly, the dissolution of the Biographic and Facilities Group entailed a reduction in the functions and work-load of the Technical Services Division but did not affect the functions of the Center significantly, since the Battelle Memorial Institute in Columbus, Ohio, (an ATIC contractor, referred to unofficially, within the Center, as "Project Stork") was maintaining extensive files similar to those of the Biographic and Facilities Group, and the Battelle files were available to ATIC personnel. Action to dissolve the Biographic and Facilities Group permitted (1) a consolidation of the group's files with the Battelle files, and (2) release of group personnel for reassignment to more urgent duty. (UNCLASSIFIED)

Considerations underlying the third organizational change (the advancement of Reproduction and Graphic Services from section to branch level) were, first, the hope of increasing the efficiency of division operations and, second, the recognition of the size and

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importance of the Reproduction and Graphic Services organization. The change gave the chief of Reproduction and Graphic Services direct access to the division chief, and thus promoted the efficiency of operations, but it entailed no alteration in the mission or functions of the division.

(Uncl)

Several key officers of the Technical Services Division were reassigned in the period covered by this installment of the ATIC history. Major Willis R. Lochr was relieved as Executive Officer and was assigned to the position of Plans and Operations Officer,<sup>5</sup> vice Major Clarence R. Glasebrook, who was assigned to Headquarters USAF Institute of Technology, with permanent duty station at the Foreign Service Institute, Department of State, in Washington, D.C., to pursue the Turkish Language Course.<sup>6</sup> The position of Executive Officer was still vacant on 30 June 1954. (Uncl)

Lt. Colonel Elmer T. Harshbarger, deputy chief of the division since 19 August 1953,<sup>7</sup> was relieved of this position and was assigned as chief of the ATI Indoctrination Branch when this organization was transferred to the Technical Requirements Division.<sup>8</sup> (Uncl)

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<sup>5</sup> Hq 1125th USAF FAG (ATIC): PAM 8, 4 February 1954.

<sup>6</sup> Hq 1125th USAF FAG (ATIC): SO 15, 12 February 1954.

<sup>7</sup> History of the Air Technical Intelligence Center, 1 July - 31 December 1953 p. 49.

<sup>8</sup> Hq 1125th USAF FAG (ATIC): PAM 9, 5 February 1954.

Lt. Frank J. Blaser, administrative officer, was transferred to the Fitzsimmons Army Hospital for prolonged treatment,<sup>9</sup> and Major Evan T. Hopkins was released from his position as chief of the Document Services Branch,<sup>10</sup> for assignment to FEAF. Succeeding Major Hopkins was Major T. J. Connair, Jr. (Uncl)

Colonel Morris H. Shedd remained in the position of division chief,<sup>11</sup> an assignment he had held since 19 August 1953. Other key personnel still serving in previously announced assignments were Mr. Wilber Price, Jr., chief of Reproduction and Graphic Services, and Major Eugene R. Poe (recently promoted from the rank of Captain), chief of the Materiel Services Branch. (Uncl)

Authorized personnel strength of the division was reduced, of course, by the transfer of the ATI Indoctrination Branch to the Technical Requirements Division and by the dissolution of the Biographic and Facilities Group. The adjusted figures, for personnel authorized and assigned, at the end of the first half of the year 1954, are tabulated below:

	<u>Authorized</u>	<u>Assigned</u>
Officers	19	11
Airmen	20	22
Civilians	108	97

(Uncl)

<sup>9</sup> Hq 1125th USAF FAG (ATIC): SO 44, 11 April 1954.

<sup>10</sup> Hq 1125th USAF FAG (ATIC): SO 82, 28 June 1954.

<sup>11</sup> History of the Air Technical Intelligence Center, 1 July - 31 December 1953, p. 49.

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Before transfer of the ATI Indoctrination Branch, authorized totals for officers, airmen, and civilians were 36, 40, and 118 respectively. Thus, the reductions in authorized strength amounted to 17 officers, 20 airmen, and 10 civilians. As the foregoing table indicates, the assignments which were filled at the end of the first half of the year left the division substantially under strength in two of the three categories. (Uncl)

## II. ACTIVITIES, EVENTS, AND PROBLEMS

### DOCUMENT SERVICES:

(Uncl) Previously Reported Projects and Problems. Work was continued on projects to index ATIC publications and to catalogue visual aids, but progress was hampered by the personnel shortages and completion of the work was not yet in sight by mid-1954. (Uncl)

(Uncl) Current activities. Receipt of documents through intelligence channels was continued at the rate of approximately 6000 a month. The Document Services Branch was able to process most of these documents, month by month, and disseminate them to interested personnel. (Uncl)

At mid-year, contracts for the translation of foreign-language documents were in effect with Associated Science Translators, Inc., of Newark, N. J., and with the Language Service Bureau, of Washington, D.C. The combined cost of both contracts amounted to \$100,000 for the Fiscal Year 1954.

(unclas)

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History of the Air Technical Intelligence Center, 1 July - 31 December 1953, p. 50.

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A request for negotiation of new contracts for translation, during Fiscal Year 1955, was filed with the Procurement Directorate, Air Materiel Command; and, in addition, plans were made to investigate the feasibility of establishing an ATIC office in the New York area for the purpose of obtaining translations from technically qualified personnel under individual contracts. The decision to investigate this possibility was reached after the Air Information Division of the Library of Congress reported that it could not comply with an ATIC request for translations services. (~~CONFIDENTIAL~~)

(unclas)

REPRODUCTION AND GRAPHIC SERVICES:

(Uncl) Activities. Major contributions of the Reproduction and Graphic Services Branch to the over-all ATIC effort during the first half of the year 1954 were (in addition to the usual reproduction and illustration of intelligence studies and reports) the interpretation of photographs published by the US press, concerning Soviet aircraft, and the preparation of detailed drawings based on an analysis of intelligence information. Both the photographic interpretation and the drawings were used by the Technical Analysis Division in the continuing effort to estimate the Soviet air potential. (~~CONFIDENTIAL~~)

(unclas)

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MATERIEL SERVICES:

(Uncl) Activities. The most significant contribution of the Materiel Services Branch was the work performed by the Foreign Equipment Section in connection with the receipt of a complete, operational Soviet MIG-15 aircraft. This plane, surrendered by a North Korean pilot in response to the US offer of a \$100,000 bounty, was received at the Wright-Patterson Air Force Base on 8 January 1951, shortly after midnight. Within an hour and a half it was completely unloaded from the C-124 aircraft which had brought it in, and was taken to a hangar on the base. Here it was made available to analysts of the Technical Analysis Division, who established and monitored an extensive program of testing and evaluation. (Uncl)

Another significant item received by the Foreign Equipment Section was an East-German decimeter radio relay station, complete with power supply and antennas. This equipment was assembled, by the section, for study and evaluation by personnel of the Technical Analysis Division, the Signal Corps, the United States Navy, the CIA, and other interested agencies. (~~SECRET~~)

*(uncl)*

The Materiel Services Branch, charged with responsibility for maintenance of the steel hangars housing the Center (Building 263), continued to struggle with the hopeless and costly problem of providing adequate office and laboratory facilities in the outmoded and dilapidated hangars. (Uncl)

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**TECHNICAL REQUIREMENTS  
DIVISION  
(ATIR)**

## TECHNICAL REQUIREMENTS DIVISION

## I. ORGANIZATION, FUNCTIONS, AND KEY PERSONNEL

Primarily, the Technical Requirements Division is responsible for consolidating and compiling the needs of the Air Technical Intelligence Center for intelligence information and for locating, recommending, and evaluating means for obtaining this information. Selection, training, guidance and general administration of field personnel engaged in collection activities are also major responsibilities of this division. (Uncl)

During the reporting period, this division underwent a major reorganization.<sup>1</sup> The training function was acquired from the Technical Services Division and the function of processing field personnel was relinquished to the Policy and Management Office. These functional changes imposed the heavy administrative load of revamping organizational and position structure, replanning of projects and programs, and ~~xxx~~ shifting of personnel and work assignments. A part of the administrative work remains to be accomplished in the next period.

(Uncl)

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<sup>1</sup> See History of Policy and Management Office, p 25 , this edition.



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At the beginning of the period, the major organizational segments of this division and key personnel were:

- Chief, Technical Requirements Division      Colonel Rolf D. Cape
- Chief, Collection Planning Office            Lt Colonel Michael J. Platnitsa
- Chief, Collection Control Branch            Major Patrick J. Ness
- Chief, ATL Program Branch                   Lt Colonel John L. Brownswell
- Administrative Assistant                    Mrs. Ruth C. Arnold

(Uncl)

During the period, the following changes occurred in key personnel:

On 25 January 1954, Lt Colonel Brownswell left the division to become chief of the Air Intelligence Office.<sup>2</sup> He was replaced as chief of the ATL Program Branch by Major L. W. Glowa, formerly assigned to the Planning Office.<sup>3</sup> Later, when the ATL Program Branch was deactivated,<sup>4</sup> Major Glowa returned to the Planning Office. (Uncl)

When the training function was transferred from the Technical Services Division, 5 February 1954, Lt Colonel Elmer T. Harsbarger,<sup>5</sup> formerly deputy chief of the Technical Services Division, was transferred with the function and assigned as chief of the ATI Indocination Branch. (Uncl)

<sup>2</sup> Hq 1125th USAF FAG (ATIC): PAM 5, 25 Jan 54.

<sup>3</sup> Ibid.

<sup>4</sup> Hq 1125th USAF FAG (ATIC): GO 13, 3 May 54.

<sup>5</sup> Hq 1125th USAF FAG (ATIC): GO 3, 5 Feb 54.

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On 17 June 1954, Major A. V. Jackson replaced Major Ness as chief of the Control Branch. Pending his departure to attend school, Major Ness was reassigned to the Planning Office, where Major Jackson had formerly been assigned.<sup>6</sup> (Uncl)

In the field liaison offices, Colonel G. R. Hundt replaced Colonel R. A. Elder as chief air technical liaison officer, Headquarters USAF. Colonel Elder, who had completed his overseas tour of duty, was reassigned to Eglin AFB, Florida.<sup>7</sup> (Uncl)

Organizational segments and key personnel at the end of the period were:

Chief, Technical Requirements Division	Colonel Rolf D. Cape
Chief, Planning Office	Colonel Michael J. Piatnitsa
Chief, Control Office	Major A. V. Jackson
Chief, ATI Indoctrination Branch	Lt Colonel Elmer T. Harshbarger
Administrative Assistant	Mrs. Ruth C. Arnold (Uncl)

As of 1 January 1954, the authorized strength of 97 officers, 28 airmen, and 49 civilians; assigned strength was 82 officers, 29 airmen, and 43 civilians. At the end of the period, manpower allotments and personnel strength were: 114 officers authorized, 100 assigned; 59 civilians authorized, 50 assigned; 49 airmen authorized, 47 assigned.  
(Uncl)

<sup>6</sup> Hq 1125th USAF FAG (ATIC): PAM 35, 17 Jun 54.

<sup>7</sup> Hq 1125th USAF FAG (ATIC): PAM 38, 25 May 54.

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II. ACTIVITIES, EVENTS, AND PROBLEMS

During this reporting period, the major portion of the Technical Requirements Division's activity toward furthering the collection of air technical intelligence information consisted of redefining areas of interest and types of information desired, in light of the Center's mission and its objectives as stated in the Ten Year Plan,<sup>8</sup> and in giving more specific guidance to collectors. (Uncl)

(Uncl) COLLECTION PROGRAMS:

(Uncl) REG Program:<sup>9</sup>

The need for improvement in administrative procedures for the Center's use of the Returnee Exploitation Group, Europe, a CIA monitored activity, and the growing importance of the REG as a source of intelligence information caused this specific phase of collection to be changed from a sub-project under the "specialized personnel" project to a main project. ~~(SECRET)~~ (u)

The purpose of the project is four-fold: To provide guidance to the REG for the defection and interrogation of German technical specialists who have been repatriated from the Soviet Union; to maintain files of REG reports and a biographical register of all Germans known to have been deported to the USSR; to prepare ATIC requirements to be served on REG; and to conduct liaison between the ATIC and CIA on matters pertaining to REG operations. ~~(SECRET)~~ (u)

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<sup>8</sup> History of the Air Technical Intelligence Center, 1 Jan - 30 Jun 53, pp 8-10.

<sup>9</sup> ATIR Project 40024, May 1954. Formerly ATIR Project 40016-31.

In order to assist field collectors, the ATIC provides REG Europe and Headquarters USAFE with guidance in the form of requirements and priorities based on information contained in ATIC files and a CIA biographic register. Upon recommendations of the ATIC, the Inter-Departmental Defection Committee assigned responsibility for final selection of individuals to be targeted for defection to REG Europe. In addition, REG is responsible for transportation, interrogation, logistical support, and re-settlement of all scientific and technical defectors. ~~(SECRET)~~ (U)

A conference was held 15 April between the Scientific Estimates Committee and the CIA, to discuss operational problems relating to this program. The ATIC Scientific Advisor, Mr. Arcier, represented the ATIC on the SEC. As a result of this conference, brochures indicating the fields of interest of the using activities have been substituted for individual specific requests for information. These brochures eliminate duplicate requests, reduce administrative workload, and supply guidance to field operational personnel more quickly and in more usable form. ~~(SECRET)~~ (U)

Work is now in progress to revise the REG requirements relating to Postfachs.<sup>10</sup> Development of REG requirements relating to Zavods<sup>11</sup> will also be undertaken. ~~(SECRET)~~ (U)

<sup>10</sup> Russian term for controlled mailing address. Comparable to an APO.

<sup>11</sup> USSR industrial combine or complex.

In addition, an air technical liaison officer is assigned to the REG in Frankfurt and in Berlin, Germany. (~~SECRET~~) (u)

(Uncl) Scientist Program.<sup>12</sup> This program has not produced the results hoped for. Although the scientists who traveled abroad under ATIC contract have collected some data of value to the Air Research and Development Command, which participates in the benefits derived from this project, and have assisted in determining the research capabilities of those countries visited, they have not supplied any considerable amount of information needed by the Air Technical Intelligence Center, particularly on the USSR and its satellites. What new information was obtained through these scientists could have been obtained more easily and less expensively through air technical liaison officers and other Armed Services collection personnel. The failure of the scientist program has been due, in part, to the lack of specific objectives and administrative deficiencies. Plans to correct these deficiencies are being devised. Information on German scientific and technical academic systems has been added to the subject matter to be included under this program.

(~~SECRET~~) (u)

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12

ATIR Project 40016, "Collection of ATI Information (Specialized Personnel)."

(Uncl) Technical and Scientific Meetings.<sup>13</sup> Closely allied to the scientist program is the project for obtaining intelligence information through coverage of scientific meetings and trade fairs, particularly those held in the USSR and satellite countries or attended by Soviet scientists in the free world. Because of a definite increase in Russian participation in affairs of this kind, this project has been removed from deferred status. During the reporting period, plans were made jointly by the CIA and the ATIC to coordinate their activities in furthering the collection of intelligence information through these sources and to furnish guidance to overseas collectors. An Intelligence Collection Guidance Letter on this subject was sent to the field in June. Lists of 1954 International Conferences and Trade Fairs have been received and screened for coverage desired by the ATIC. Case folders for each conference of possible interest to the ATIC are being prepared. These case histories will be used to maintain a record of sources and pertinent information collected, and to evaluate the productivity and value of these activities as sources of intelligence information. ~~(SECRET)~~ (u)

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<sup>13</sup> ATIR Project 40017, "Exploitation of Technical and Scientific Meeting."

(Uncl) Domestic Program.<sup>14</sup> Tentative plans for ATIC activity in obtaining air technical intelligence information directly from domestic sources were cancelled since the Center can place requirements on CIA which has the primary responsibility for this type of collection. During the period, the CIA made available 423 sources. The ATIC utilized 118 of these sources, submitting 307 requirements on them. One hundred sixteen of these requirements have been fulfilled or cancelled, and 208 are still active. During the same period, the ATIC notified CIA of 301 possible sources and placed, through the CIA, requirements on 62 of these sources. ~~(SECRET)~~ (u)

(Uncl) Basic Requirements:<sup>15</sup>

Several improvements made by the Directorate of Intelligence in the basic requirements program will result in the Center's receiving better service in regard to basic air intelligence. These improvements consisted primarily of standardization of format and terminology for requirements submitted to the D/I Screening Panel and the application of cut off dates to subjects listed in the "Basic Air Intelligence Requirements" manual.<sup>16</sup>

Standardization of format and terminology will provide the D/I Screening Panel with a better understanding of the Center's needs, while cut off dates in BAIR will reduce the amount of unusable, out-of-date intelligence information being received by the Center, particularly from REG sources. ~~(CONFIDENTIAL)~~ (u)

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<sup>14</sup> ATIR Project 40018, "Collection of ATI Information - Domestic."

<sup>15</sup> ATIR Project 40021, "Collection of ATI Information (General)."

<sup>16</sup> Directorate of Intelligence Publication.

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Under the basic requirements program, two Intelligence Collections Guidance Letters (ICGL) were prepared. ICGL No. 2, "Petroleum, Oils, and Lubricants," was revised to clarify instructions for labeling samples, to stress the need for expeditious shipping of samples, and to list the relative order of importance of materials desired. A new letter was prepared on scientific meetings and fairs.<sup>17</sup> Guidance was also provided by an article for the ATIO Journal on the intelligence importance of the use and application of critical materials. This article was written in conjunction with the Technical Analysis Division. (~~CONFIDENTIAL~~) (u)

Preparation of other guidance material relating to general requirements had to be suspended because of higher priority work on other projects. Suspended were revision of ICGL No. 2, "Minifon Recorders," and Chapter 5M, BAIR (Material Requirements); and three new letters, one on packaging and shipment of electronic tubes, one on the five most important items of air technical intelligence interest, and one on environment control and characteristics of aeronautical equipment. (Uncl)

(Uncl) Surveillance of Intelligence Photography.<sup>18</sup> One hundred thirty-three photographs, 20 films, and 146 mission review photo intelligence reports were obtained from other intelligence agencies, reviewed, and evaluated. (~~CONFIDENTIAL~~) (u)

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17

See page 58, this section.

18

A sub-project under ATIR Project 40012, "Collection of ATI Information (General)."

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(Uncl) Specific Requests.<sup>19</sup> The workload of specific requests was, for the most part, constant throughout the period. At the beginning of the period, 210 SRI's were active. During the period, 198 were initiated and 208 closed out, leaving 200 active at the end of the period. A critical review of 3<sup>9</sup> SRI's one year old resulted in nine being cancelled as no longer current, seven being closed out as completed, five being revised, and 18 continued without revision. (Uncl)

(Uncl) Foreign Equipment and Material ("Blue Fly").<sup>20</sup> This project, popularly known as "Blue Fly," an unregistered nickname, was in standby status during the period. (Uncl)

(Uncl) Fly-By. Although ATIC representatives were unable to go to Moscow for the May Day celebration, recordings and photographs were obtained and have provided some useful intelligence information. Coverage of the coming Tushino Air Show by the same source is being planned. (~~SECRET~~) (u)

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<sup>19</sup> ATIR Project 40001, "Collection of ATI Information - Specific Requests."

<sup>20</sup> ATIR Project 40020, "Collection of ATI Information - Foreign Equipment and Material."

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(SUncl) SPECIAL COLLECTION DEVICES:

Accomplishments and problems pertaining to the development, and procurement of specialized collection devices were as follows:

(Uncl) Lenses. The success obtained through the use of the three 80-inch zoomar lenses procured during the preceding period,<sup>21</sup> justified the procurement of two more of these lenses. One of these was sent to the Alaskan Air Command and the other reserved for a pending Top Secret project. One of the 150-inch lens being tested by the Physical Security Equipment Agency at the time of its deactivation was also obtained and sent to USAFE. ~~(SECRET)~~ (u)

(Uncl) Recorders. The search for a suitable miniature wire recorder continued. Minifon recorders have not proved to be entirely satisfactory chiefly because their foreign origin makes their availability unreliable and requires an excessive amount of time for their repair and modification. Plans are being made to obtain a sub-miniature recorder that was being developed under contract for the Physical Security Equipment Agency at the time of its deactivation, and to contract the repair and maintenance of Minifons to a US firm, pending the development of a more satisfactory recorder within the United States. ~~(CONFIDENTIAL)~~ (u)

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<sup>21</sup>

History of ATIC, 3 July - 31 December 54, Page 42.

(Uncl) Film and Developers. Tests of developers and film combinations best suited for intelligence photography are continuing. Super-Tonic color film, ASA-100, was found to be suitable only where grain was not important. Although the grain size obtainable with British Ilford Pan F, ASA-25, and Eastman Kodachrome, ASA-10 is superior to that obtained from Plus X, both ASA-25 and ASA-10 have too slow an emulsion speed. The Eastman Kodak D-25 developer was the best found to date for use with Plus X film and Adox, a German manufactured film. (Uncl)

(Uncl) GUIDANCE MATERIAL:

In addition to the collection guidance letters prepared for the Directorate of Intelligence, Headquarters USAF, work progressed on other guidance material as follows:

(Uncl) Manuals: <sup>22</sup>

One collection guidance manual was published and distributed, one was sent for publication, and two are in preparation. "ICGM - Aircraft Equipment,"<sup>23</sup> was distributed 1 March 1954. Revision of "ICGM - Aircraft,"<sup>24</sup> which contains a new section on Boundary Layer Control, was forwarded for publication 11 March 1954. The first draft of "ICGM - Aircraft Materials,"<sup>25</sup> has been completed and is

<sup>22</sup>

ATIR Project 40014, "Preparation of ATI Collection Guidance Manuals."

<sup>23</sup>

AFM 200-15.

<sup>24</sup>

AFM 200-12, Rev.

<sup>25</sup>

AFM 200-16.

being reviewed by the technical intelligence specialists in the Technical Analysis Division. Twelve sections and two appendixes of "ICGM - Intelligence Photography,"<sup>26</sup> have been drafted; five sections and four appendixes remain to be written. Scheduled completion date is 15 August 1954. (Uncl)

In addition to work on these manuals, assistance was given to the Technical Analysis Division in the preparation of the ATIC's contribution to a biological and chemical warfare manual being compiled at Headquarters, USAF.<sup>27</sup> (Uncl)

(Uncl) Technical Trip Briefs (TTB's). Special guidance material, "Technical Trip Briefs," for five special trips to be performed by collection personnel were completed. Present plans call for 10 more TTB's to be produced. (Uncl)

(Uncl) Priority Target Folders (PTF's). Plans were completed for the preparation of special guidance material on critical collection requirements. Material for these folders has been assembled but actual work of preparation had to be deferred because of higher priority assigned to the technical trip briefs. (Uncl)

(Uncl) AIR TECHNICAL LIAISON PROGRAM:

This program was reviewed and plans made to improve it. A projected ATLO program extending through 1956 is being planned.

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<sup>26</sup>

AFM 200- (Number not assigned).

<sup>27</sup>

See Technical Analysis Division History, page 116, this edition.

In the operation of this ATL program in the Austrian area, a problem arose pertaining to the exact relationship between the ATL Office and the 1142d USAF Special Activities Squadron, Headquarters USAF. The Commander on his visit to Europe in February 1954,<sup>28</sup> was advised of this problem. On 20 June 1954, the chief of the Technical Requirements Division departed for approximately 30-day temporary duty in Austria to further investigate this situation. (Uncl)

The practice of returning ATLO's once during their overseas tour has been very successful from the point of view of both the Center and the ATLO. (Uncl)

Improvements made in the interrogation and reorientation program for ATL personnel include a revised interrogation questionnaire and a program of interviews and discussions with personnel of the Center's three technical divisions and the Policy and Management Office. (Uncl)

Training plans for approved applicants for the air technical liaison program presently call for 50 to 100 weeks of training prior to assignment, the length of training period depending upon the applicant's background and the tentative ATL assignment. The preliminary training includes language training, photographic training, practical training in the applicant's particular specialty and in the particular duties inherent in the proposed assignment. (Uncl)

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28

See Office of the Commander History, page 9, this edition.

During the period, nine officers and five airmen completed preliminary training. Sixteen officers, five airmen, and four civilians were assigned to ATL positions. Seven officers, three airmen, and one civilian completed their overseas tours and were returned to the Zone of the Interior for reassignment. Only three of these returnees were assigned to the Air Technical Intelligence Center. Twenty-five air technical liaison officers were returned to the Center for interrogation and reorientation. (Uncl)

The following table reflects the manpower situation of the air technical liaison program during the reporting period:

	Authorized		Assigned		Authorized		Assigned	
	1 Jan 54		1 Jan 54		30 Jun 54		30 Jun 54	
	<u>MIL</u>	<u>CIV</u>	<u>MIL</u>	<u>CIV</u>	<u>MIL</u>	<u>CIV</u>	<u>MIL</u>	<u>CIV</u>
ATL Office Austria	26	8	21	7	26	8	21	8
ATL Office Germany	64	14	46	13	65	15	51	15
ATL Office Japan	<u>9</u>	<u>1</u>	<u>8</u>	<u>1</u>	<u>9</u>	<u>1</u>	<u>8</u>	<u>1</u>
TOTAL	99	23	75	21	100	24	80	24

(Uncl)

Extra manpower allotments are needed to train replacements before overseas positions become vacant. At present, air technical liaison trainees have to be carried against existing overseas vacancies. Were all overseas positions to be filled, there would be no manpower allotments available for training purposes. (Uncl)

(Uncl) COLLECTION PLANS AND STUDIES:

In addition to the plans and studies incorporated in the active projects and programs of the Technical Requirements Division, other plans were developed or evaluated with the following results:

(Uncl) U. S. Missions Abroad. From a study of "Project News," a publication of the Foreign Operations Administration (FOA), it was determined that the FOA might be a useful source for obtaining intelligence information. A recommendation has been submitted to the Directorate of Intelligence to explore the possibilities of liaison with the FOA for this purpose. (~~CONFIDENTIAL~~) (u)

(Uncl) VLF Communications. The ATIC's study on very low frequency communications in relation to intelligence collection was approved 25 February 1954 by the Director of Intelligence for implementation. (~~CONFIDENTIAL~~) (u)

(u) ~~(CONFIDENTIAL)~~ Foreign Travel of USAF and Contractor Personnel. Draft of the proposed Air Force directive on this subject, reported as pending in the preceding edition of the history,<sup>29</sup> was received and reviewed. Minor changes were suggested. When this directive is published, notifications of foreign travel will be made by all Air Force activities instead of just by the Air Materiel Command and Air Research and Development Command activities, as at present.<sup>30</sup> (~~CONFIDENTIAL~~) (u)

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<sup>29</sup> History of the Air Technical Intelligence Center, 1 Jul - 31 Dec 53, p. 42.

<sup>30</sup> See page 59, this edition.

(Uncl) Special Collection Devices. A request has been submitted to the Directorate of Intelligence to assign to the ATIC the USAF mission of developing special photographic and electronic devices for field collection of intelligence.<sup>31</sup> Particularly, the ATIC wishes to secure appropriate projects and equipment which the Physical Security Equipment Agency had in process at the time of its dissolution. ~~(SECRET)~~ (u)

(Uncl) Foreign Manufactured Equipment. Plans were completed for using commercial import-export facilities on a world-wide basis for securing foreign manufactured equipment needed for intelligence purposes. A proposal has been made to the Director of Intelligence for utilizing G-2 army missions for this same purpose. It is planned to send ATIC representatives to the G-2 school to be held in Washington, D. C., during the next period. This collection program is referred to locally as "Janus," an unregistered nickname. Action will be taken in the next period to secure a registered nickname for this activity. ~~(SECRET)~~ (u)

(Uncl) Solar Eclipse. The ATIC's plan for exploiting the solar eclipse, 30 June 1954, had to be cancelled because of difficulties in obtaining entrance into the USSR. It is now planned to debrief the Cambridge Research Center's team upon their return from the Iranian border. ~~(SECRET)~~ (u)

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MFR to Commander ATIC, 28 Apr 54, transmitted to Director of Intelligence by letter, 7 May 54. Follow-up, 9 Jun 54.



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(Uncl) Sonic and Seismic Aircraft Detection. The first step in the research being conducted by Melpar, Inc., under ATIC contract, to determine the feasibility of using sonic and seismic devices for detection and identification of aircraft and rockets has been completed and the final report for this part was received 22 February 1954. A purchase request has been initiated to proceed with step two, which will be enlarged considerably over that originally planned. ~~(SECRET)~~ (u)

(Uncl) International Geophysical Year. A preliminary study has been completed concerning the possibility of exploiting the International Geophysical Year which will occur 1957-1958. (Uncl)

(Uncl) East German Patent Office. Means of securing intelligence information from the East German Patent Office are being considered. However, information obtained from visitors of the Military Intelligence Department indicated that another intelligence agency is also working on this problem. If the collection efforts of this other agency can be utilized, the ATIC may abandon its plans. ~~(SECRET)~~ (u)

(Uncl) Foreign Documents Collection. Elimination of duplication in the acquisition of foreign documents continues to be a problem. A documents air technical liaison officer has been assigned to USAFE. The NSCID 16<sup>32</sup> Sub-committee has approved the

<sup>32</sup>

National Security Council Intelligence Directive 16

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ATIC's proposal for exploitation of scientific and technical periodicals. The possibility of furnishing collection aid to the publications procurement officer in Moscow was discussed with the Department of State's Eastern European Division. Further ATIC action is being held in abeyance pending outcome of Department of State plans. ~~(CONFIDENTIAL)~~ (U)

(Uncl) Foreign Release Function. The Coordinating Air Staff, Headquarters USAF, is considering the possibility of transferring the function of foreign release of documents from the Air Research and Development Command to the Air Materiel Command. (Uncl)

(Uncl) MONITORING EVALUATION OF INTELLIGENCE REPORTS.<sup>33</sup> Improvement in reporting techniques, redefining of ATIC informational requirements, and better guidance to collectors resulted in a decline of intelligence reports requiring evaluation. During this period, 773 reports were evaluated as compared to 1156 for the preceding period. Of the 773 evaluations prepared, only 383 were mandatory, the remaining 390 being voluntarily contributed by the Technical Analysis Division analysts. (Uncl)

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ATIR Project 40023, "Evaluation of Air Technical Intelligence Reports."

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(Uncl) TRAINING ACTIVITY:

The purpose of the training conducted or monitored by the Air Technical Intelligence Center is to provide air technical intelligence training for air technical liaison personnel and other selected air force personnel, and to provide the Center's military and civilians personnel with general orientation and indoctrination. Both preliminary and inservice training are included in the training activity. A part of the training is conducted by Center personnel, a part by the Headquarters Air Materiel Command's Central Civilian Personnel Office, and a part by government and non-government schools located elsewhere. The USAF Air Technical Intelligence School is located on the Wright-Patterson Air Force Base and is under the direction of Air Technical Intelligence Center. (Uncl)

When the training function was transferred from the Technical Services Division to the Technical Requirements Division,<sup>34</sup> work was started to revamp the organizational structure, staffing pattern, training programs, projects, and courses of instruction related to this function. A part of this work has been completed; the rest is nearing completion and will be reported in the next edition of the history. (Uncl)

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<sup>34</sup>

Hq 1125th USAF FAG (ATIC): GO 3, 5 Feb 54

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(Uncl) Change in Responsibilities. To date, training responsibilities have been changed as follows:

Debriefing of Korean returnees was cancelled 5 March 1954 because the work has been completed. (Uncl)

Responsibility for in-service training of all Center personnel in security consciousness was transferred to the Unit Security Officers, 23 April 1954. (Uncl)

Administrative, clerical, and similar types of training are now provided by the training activity of the Central Civilian Personnel Office, Headquarters, Air Materiel Command, which services the Center. The Center's training administrators are responsible only for notifying supervisors and employees of the training opportunities available through the Headquarters, Air Materiel Command civilian training activity and for arranging with this activity to schedule Center personnel for selected courses. (Uncl)

The reporting phases of the Airmen Information and Education Program have been transferred to the Troop Commandant. (Uncl)

Responsibilities added to the training activity include arranging for off-the-base-training of prospective air technical liaison personnel, and supervision of the ATIC on-the-job training program for airmen. (Uncl)

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Specialized intelligence-collection photographic projects<sup>35</sup> were removed from the photographic training program and assigned to operational personnel. The three photographic training projects,<sup>36</sup> one each for air attaches, air technical liaison office personnel, and air technical intelligence investigators, were combined into one project<sup>37</sup> for better administration. (~~CONFIDENTIAL~~)

*(unclas)*

(Uncl) Space Problems:

An unsuccessful attempt was made to obtain more adequate housing facilities for the USAF ATIC School. Only two buildings on the Wright-Patterson Air Force Base were deemed suitable for the school's needs, but neither of these buildings was available. As a result, Building 89, where the school is presently located, is being renovated to provide the needed classrooms, offices, and student lounge. The new layout will provide 700 additional square feet of space, will reduce some of the problems of high noise level and poor lighting, but will not solve the problem of proper ventilation. Since Building 89 is considered by the Wright-Patterson Air Force Base to be on a stand-by basis, ATIC training personnel have had to perform the actual renovation work. In addition to work on the building, renovation work included grading of the field area and construction of a road leading to this area. (Uncl)

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<sup>35</sup> ATIR Project 70016.

<sup>36</sup> Former ATIR Projects 70013, 70014, 70015.

<sup>37</sup> ATIR Project 70025.

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The work-pool, which is under the supervision of the training activity, presented another space problem. The space made available by Headquarters, Air Materiel Command in Building 263A has been withdrawn and no suitable new location has been found. The pool is temporarily housed in Building 876. (Uncl)

(Uncl) Personnel Problems. The problem of obtaining qualified personnel to serve as instructors and supervisors for the training activity is acute. At present, this activity is short four officers. The relatively rapid turnover of instructors is also hampering the training effort. Revised staffing plans for the training activity call for two additional civilians, training-specialists, and the assignment of educational career field officers to supervisory positions. Arrangements have been made to have USAF Air Technical Intelligence School instructors attend an instructor's training course at the Air University, Maxwell Air Force Base. During the reporting period, three instructors completed this course at the Air University. (Uncl)

(Uncl) Courses of Instruction. Revision and preparation of courses of instruction progressed as follows:

ATI Investigator Course.<sup>38</sup> A twelve-week course to replace the former nine-week course was completed and installed, 15 March 1954. The new course provides increased hours for the

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<sup>38</sup>

AFIR Project 70018, "ATI Indoctrination Course."

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various blocks of instruction and adds additional subjects relative to basic intelligence and communist area and background.

(Uncl)

Reserve Officer Training Course. Although reserve training has been a responsibility of the training activity for some time, little work had been done to plan a formal training program prior to this period. A formal reserve officer program is being written which will provide for 48 training-periods a year. Class instruction will supplant the present, informal on-the-job instruction and will give reservists training in intelligence and military subjects pertaining to their career fields. (Uncl)

Airman On-the-Job Training. A sample course for an administrative supervisor has been completed and is being reviewed for approval. This sample will serve as a guide for preparation of additional on-the-job courses for airmen. Approximately 20 airmen are presently in on-the-job training status. (Uncl)

ATLO Indoctrination Program.<sup>39</sup> A new ATLO training program is being written. (Uncl)

Orientation of New Employees.<sup>40</sup> A revised course has been completed and is waiting approval. This proposed course changes the time requirements for orientation from three to eleven hours, and is divided into two parts. The first part, five hours, will

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<sup>39</sup> ATIR Project 70024, "ATLO Indoctrination Course."

<sup>40</sup> ATIR Project 70019, "Orientation of Civilian and Military Personnel."

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consist of explaining the employee's security obligations, administration of two security-knowledge tests, and instruction on the handling of classified material. The second part, six hours, will consist of introduction to the mission, organization, and functions of the ATIC, an explanation of the employee's responsibility to the Center, and a briefing on the services and assistance available to employees. (Uncl)

(Uncl) Training Devices. During the period, two JU-004 engines were received, one of which will be used by the ATI school for training purposes. The F84 aircraft received during the preceding period was assembled and is ready for use as a training device. The Japanese aircraft "Nick," previously received, could not be used because of its extremely bad condition. There is a definite need for late types of foreign aircraft for intelligence training purposes. On 13 January 1954, action was initiated to obtain a Russian MIG-15 for this purpose. To date, the desired aircraft has not been obtained.

(Uncl)

(Uncl) Training Accomplished:

Despite the shortage of personnel and the heavy workload imposed by reorganization planning, revision of projects and courses of instruction, renovation and construction of the physical training area, the training activity has been able to accomplish the following training.

ATLO Indoctrination Program.<sup>41</sup> Training programs were arranged

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<sup>41</sup>

ATIR Project 70024, "ATLO Indoctrination Course."

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for 29 prospective air technical liaison personnel. Of this number, 14 have completed their training and have been assigned to the air technical liaison program. (Uncl)

<sup>42</sup>  
ATI Indoctrination Course (ATI School). Nine officers and 14 airmen were graduated from the technical intelligence course given by the USAF Air Technical Intelligence School. In addition, 12 students attended this course on an informal status. (Uncl)

Briefing of Air Attaches. Seven groups of Air Attaches, comprising 53 officers and 22 airmen, were briefed on activities and operations of intelligence organizations in Europe and in the Far East, the mission and functions of the ATIC, and the collection of air technical intelligence. The briefing programs included some photographic training and visits to neighboring research and aircraft manufacturing activities. (~~( )~~)

<sup>43</sup> (unclas)  
Airman I & E Program. Twenty-six I and E meetings were held, with a total attendance of 1950. (Uncl)

<sup>44</sup>  
Orientation of New Employees. Sixty-eight newly assigned employees each received a three-hour orientation on the mission, organization, and security practices of the ATIC. (Uncl)

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<sup>42</sup>  
ATIR Project 70018, "ATI Indoctrination Course."

<sup>43</sup>  
Included under ATIR Project 70019, "Orientation of Civilian and Military Personnel."

<sup>44</sup>  
ATIR Project 70019, "Orientation of Civilian and Military Personnel."

Work Pool.<sup>45</sup> Thirty-five military and 37 civilians were taken care of in the work pool pending receipt of their security clearance.

(Uncl)

Photographic Training.<sup>46</sup> A total of 85 persons, 41 officers, 41 airmen, and 3 civilians were given approximately 80 hours each of photographic training related to collection of intelligence information. (Uncl)

(Uncl) Miscellaneous Training Activities:

Photographic Services.<sup>47</sup> These services are furnished the Center as a by-product or side line by the photographic laboratory whose primary responsibility is photographic training. During the period, 5,815 negatives and 8,031 prints were produced. (Uncl)

Russian Dictionary. The need for Russian technical dictionaries for use by students attending the USAF Air Technical Intelligence School motivated the training activity to start preparation of a dictionary of this kind. Inasmuch as the work is extensive and exacting, considerable time will elapse before this dictionary is completed. (Uncl)

(Uncl) HONOR AWARDS. Mr. Virgil L. Whited, photographic instructor, was awarded a Superior Accomplishment Pay Increase for effective methods in instructing and promoting interest in photography as applied to intelligence collection.<sup>48</sup> (Uncl)

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<sup>45</sup> Included under ATIR Project 70019.

<sup>46</sup> ATIR Project 70025.

<sup>47</sup> ATIR Project 70021.

<sup>48</sup> 21 March 1954.

**TECHNICAL ANALYSIS**  
**DIVISION**  
**(ATIA)**

## TECHNICAL ANALYSIS DIVISION

## I. ORGANIZATION, FUNCTIONS, AND KEY PERSONNEL

The primary function of the Technical Analysis Division is to produce air technical and scientific intelligence studies and estimates of alien capabilities to conduct air warfare. (Uncl)

The division is divided into two offices and three branches. The offices, located at division level, are the Plans, Operations, and Administrative Office and the Technical Advisor's Office. Branches are organized according to subject matter fields: Aircraft and Propulsion Branch, Electronics Branch, and Weapons and Industry Branch. Sections within the branches are as shown on the ATIC chart.<sup>1</sup> No organizational changes occurred during the period. (Uncl)

During the period, no changes occurred in key personnel, who are:

Chief, Technical Analysis Division	Colonel Wayne L. O'Hern
Deputy Chief	Colonel Ray W. McDuffy
Executive Officer	Major John H. Westenhoff
Technical Advisor	Mr. Charles F. Zimmerman
Chief, Plans, Operations and Administrative Office	Mr. Miles E. Goll
Administrative Assistant	Mr. Herbert W. Dresser
Chief, Aircraft & Propulsion Br.	Lt Colonel Harry F. Bunze
Chief, Electronics Br.	Lt Colonel Harry C. Johnston
Chief, Weapons and Industry Br.	Mr. Nicholas Post

(Uncl)

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1

Manpower authorizations and assigned strength at the beginning and the end of the period were:

	1 January 1954			30 June 1954		
	<u>Officers</u>	<u>Airmen</u>	<u>Civilians</u>	<u>Officers</u>	<u>Airmen</u>	<u>Civilians</u>
Authorized	44	8	111	44	10	114
Assigned	19	7	109	26	7	110

(Uncl)

## II. ACTIVITIES, EVENTS, AND PROBLEMS

The work projects of the Technical Analysis Division are performed partially by contractors and partially within the ATIC by technical personnel assigned to this division. Some of these projects are broad in scope, covering a wide geographical area or all phases of a particular subject. Others are limited to a specific country or a particular piece of equipment. Some involve contributions from more than one of the technical branches while others are accomplished within a particular branch or section, often by a single technical analyst. (Uncl)

During the period, the division spent considerable time in re-evaluating its current projects in light of the objectives established in the ATIC Ten-Year Plan,<sup>2</sup> planning the revamping of its project structure for better administration and increase in

<sup>2</sup>

History of Air Technical Intelligence Center, 1 Jan - 30 Jun 1953, pp 8-10.

production, and determining the priority order for its workload. The division is attempting to achieve depth in its research activities by narrowing the scope of investigation and analysis. A start has been made in carrying out these plans. (Uncl)

A table summarizing quantitatively the division's project activity for the reporting period is included at the end of this section.<sup>3</sup> In the more detailed description of projects which follows, projects are grouped by subject instead of by project number sequence.

(Uncl)

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(Uncl) PROJECT "BLUE BOOK":<sup>4</sup>

Reports of unidentified flying objects ("flying saucers") continue at about the same rate as for the past two years. From 1 January through 30 June this year, 184 official reports were received. Percentages for disposition of these reported citings remain the same; 70 percent identified as known objects or phenomena, 20 percent discarded because they contained insufficient information, leaving 10 percent classed as unknown. The last reported citing, made by a British Overseas Airway pilot off the coast of Labrador, has been identified as an inversion reflection of the planet Mars. (Uncl)

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<sup>3</sup>

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<sup>4</sup>

Project 10073. "Blue Book" is a popular, not an official, code word.  
15 Aug 50.

A few of the reports concerned shattered windshields, indicating that some people have associated the recent epidemic of windshield incidents (appearing in the press) with the "saucer" subject. (Uncl)

A contractor<sup>5</sup> has completed two studies for this project: A study of Videon cameras for use in photographing citings and a statistical study of reported citings. Limited distribution will be given these reports when they are ready for release. (Uncl)

The AF Regulation transferring responsibility for field investigation of citings to the 4602d AISS, Air Defense Command, mentioned in the preceeding edition of the history,<sup>6</sup> has not been released but is expected early in the next period. (Uncl)

KNOWN AIRCRAFT:

Known aircraft studied during the period were the MIG-15, MIG-17, YAK-23, and TU-4. Designated aircraft deferred until sufficient information is available, are the DFS-36<sup>7</sup> and the EF-150.<sup>8</sup> (~~CONFIDENTIAL~~) (u)

MIG-15. One of the most significant pieces of intelligence research accomplished by the ATIC in the past three years pertains to the Soviet MIG-15 fighter aircraft. The main MIG-15 projects accomplished or underway are:

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<sup>5</sup> Battelle Memorial Institute.  
<sup>6</sup> History of Air Technical Intelligence Center, 1 Jul - 31 Dec 53, p. 73.  
<sup>7</sup> Project 10117, "The Soviet DFS-36 Supersonic Research Plane."  
<sup>8</sup> Project 10118, "The Soviet EF-150 Prototype Aircraft."

10115, (Uncl) "Evaluation of the MIG-15," the first MIG-15 project established, was planned to cover the overall study that will be prepared when the MIG-15 research is completed. The first MIG-15 analyzed under this project was one with a RD-45 engine. A later type MIG-15 with a different engine was analyzed and reported under another project (10181). Project 10115 is being held open until the overall story of the MIG-15 is published. Little work has been accomplished on this project since the Cornell Aeronautical Laboratory completed its research, under ATIC contract, in December 1953. ~~(CONFIDENTIAL)~~ (u)

10155, (Uncl) "Combat Radius Capabilities of the Soviet MIG-15." This MIG project was tentatively completed with the distribution of ATI Study No. 102-AC-52/35-34, same title as the project. It is being held open until guidance material for using agencies can be prepared and it can be determined from flight test data currently being analyzed whether any revision in the published study is necessary. (Uncl)

30074, (Uncl) "Analysis of Soviet Interceptor Components." ATIC technical report, "Analysis of Soviet Interceptor Components," summarizing all the known data on the components of the MIG-15, was released 19 January 1954, whereupon the project was closed. (Uncl)

10179, ~~(CONFIDENTIAL)~~ (u), "Soviet VK-1A Turbojet Engine No. 26883, Series 6." Under this project, established 29 September 1953, an analysis of an engine found in one of the later type MIG-15's was made.

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Report on the findings,<sup>9</sup> was approved 7 May 1954, and is scheduled for release in August 1954. This report will contain a thermodynamic analysis to supplement the estimates. (~~CONFIDENTIAL~~) (U)

10181, (Uncl) "Project Zeta."<sup>10</sup> This project was established in October 1953 to cover the Okinawa flight tests of the much publicized MIG-15 that was delivered by its pilot to the United Nations Forces at the close of the Korean hostilities. Because of time limitations, this project was approved informally and the number tentatively assigned. Distribution of TR-AC-27, 23 October 1953, completed this project. Flight test data subsequently received is being analyzed and will be included in the comprehensive study under project 10115. Since project 10181 was completed before it was formally established, it does not appear in any monthly index of ATIC project activity.

(Uncl)

10187, (Uncl) "Evaluation of Project Zeta Power Plant." This project, officially established 17 March 1954, relates to the VK-1 power plant contained in the North Korean ("Zeta") MIG-15. A report summarizing and evaluating the results of teardown, inspection, and thrust stand testing of the "Zeta's" power plant is well underway, as is also a motion picture depicting the history and potential development of the VK series of Soviet turbojet engines. (Uncl)

9

TR-AC-33.

10

"Zeta" is a popular term, not an official code word. The term was chosen because this is the sixth MIG-15 to be analyzed by the ATIC.

<sup>11</sup>  
MIG-17:

The Soviet Type-38 aircraft has been identified as the MIG-17. Eighty-five MIG-17's were observed during the 1954 May Day Air Show further substantiating the supposition that this aircraft had been placed in operational use. Some of the MIG-17's observed appear to be identical to those that appeared in the 1953 Soviet air shows. On others, however, the dive brakes appear to be located immediately aft of the wing trailing edge rather than in the aft position on the fuselage. No other significant changes were noted. ~~(SECRET)~~ (u)

Preliminary analysis of this aircraft was reported in ATI Study No. 102-AC-54/2-34, distributed in June 1954. Study of the MIG-17 will continue. (Uncl)

<sup>12</sup>  
YAK-23. Testing and analysis of the YAK-23, was started early in 1954. When this work is completed, a technical report will be issued and a film, "Project Alpha," will be released on this aircraft. The term "Alpha" is used within the ATIC to refer to this aircraft because it is the first YAK-23 to be received for analysis. ~~(SECRET)~~ (u)

<sup>13</sup>  
TU-4 Bomber. Revision of the former AMC Intelligence Department study on this bomber, <sup>14</sup> published in 1950, is still pending. (Uncl)

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<sup>11</sup>  
Project 10180, "Preliminary Analysis of the Soviet Type-38 Aircraft," 5 Jan 54.

<sup>12</sup>  
Project 10178, "Project Alpha," 26 Oct 53. "Alpha" is a popular term, not an official code word. Project pending approval.

<sup>13</sup>  
Project 10176, "Soviet TU-4 Bomber," July 1953.

<sup>14</sup>  
I/D Study 102-AC-50/36-34, prepared under AMC Intelligence Department Project 10054.

UNDESIGNATED AIRCRAFT:

Undesignated aircraft studied during the period are the Type-31, Type-36, Type-37 and Type-39. Study of the Type-15, initiated in 1952, will probably be discontinued because of the low priority for information on this aircraft. (Uncl)

(Uncl) Type-31 Bomber.<sup>15</sup> ATI Study No. 102-AC-53/13-34, containing the preliminary analysis of this aircraft, was released 31 March 1954. When additional information becomes available, study of this aircraft will continue. (Uncl)

(Uncl) Type-36 Helicopter.<sup>16</sup> Work is progressing on the study which will cover the total aircraft. Preliminary Performance and Characteristic sheets were forwarded to the Directorate of Intelligence in March 1954 for inclusion in the handbook on USSR Aircraft. An article on the load capabilities of this helicopter was published in the May 1954 issue of the "Air Intelligence Digest." (Uncl)

(Uncl) Type-37 Aircraft.<sup>17</sup> Preliminary study of this aircraft, ATI Study No. 102-AC-54/4-34, is being drafted and will be ready for coordination approximately July 1954. (Uncl)

(Uncl) Type-39 Aircraft.<sup>18</sup> Draft of the preliminary study, ATI Study No. 102-AC-54/5-34, is nearing completion and will be ready for coordination in July 1954. (Uncl)

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15 Project 10160, ~~(Conf)~~ <sup>(U)</sup> "Analysis of the Type-31 Bomber," 27 Jun 52.

16 Project 10188, ~~(Conf)~~ <sup>(U)</sup> "Preliminary Analysis of the Soviet Type-36 Helicopter," 12 Feb 54.

17 Project 10195, ~~(Conf)~~ <sup>(U)</sup> "Analysis of the Soviet Type-37 Aircraft," 27 May 54.

18 Project 10196, ~~(Conf)~~ <sup>(U)</sup> "Analysis of the Soviet Type-39 Aircraft," 27 May 54.

AIR-WEAPON COMPONENTS:

Aircraft components studied during the period include guns and fire control equipment, landing gear struts, instruments, mechanical equipment, electrical equipment, photographic equipment, and electronic equipment. Study of boundary layer control devices<sup>19</sup> had to be suspended until a suitable replacement for the project monitor, who separated in 1953, could be secured. (Uncl)

(Uncl) Fire Control Equipment:<sup>20</sup>

Much of the work on this subject is being performed for the AFIC under call contract. The contract for fiscal year 1953 was let with the Emerson Electric Company, St. Louis, Missouri;<sup>21</sup> for fiscal year 1954 with the Crosley Division of the AVCO Manufacturing Corporation.<sup>22</sup> (Uncl)

Call Letter No. 2 for a report on installation of Guns in Turrets of the TU-4 Bomber was not completed by Emerson when the contract expired. In February 1954, additional information from the RAND Corporation and the Hughes Aircraft Company was furnished to Emerson. A meeting was held in April with the Emerson representatives to discuss completion of this report which was still pending at the end of the reporting period. (Uncl)

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<sup>19</sup> Project 10144, (~~CONFIDENTIAL~~)<sup>(U)</sup> "Potentialities of Boundary Layer Control Devices on Soviet Aircraft," 12 Feb 52.

<sup>20</sup> Project 30037, "Investigation of Foreign Fire Control Equipment," 29 Dec 51.

<sup>21</sup> Contract AF33(600)-18147

<sup>22</sup> Contract AF33(600)-24502

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Four call letters have been issued to date against the AVCO Contract: No. 1 for MIG-15 fire control system; No. 2 for MIG-15 generator; No. 3 for A-1 and A-1p fighter gunnery trainers; and No. 4 for installation of a camera on the MIG-15 gunsight so that photographs can be taken during firing tests. The camera-on-gunsight installation was received 15 March 1954. On 24 May 1954, an interim report on the generator was received. Report on the fire control system was accepted 4 June 1954 and is being coordinated prior to publication. Only call letter No. 3 for the fighter gunnery trainers was not completed by the end of the fiscal year. In April 1954 a purchase request was submitted to extend the contract for this project for the next fiscal year. (Uncl)

(Uncl) Guns:

A technical report on the Soviet 23-mm NR automatic aircraft gun<sup>23</sup> is in publication and is scheduled for release in July 1954. This report presents the characteristics and performance data on the 23-mm Soviet aircraft gun, Type NR-23, two versions of which were evaluated by this Center. The Naval Gun Factory, Washington, D.C. and the U.S. Naval Proving Ground, Dahlgren, Virginia, conducted firing tests under various conditions and furnished AFIC with much valuable information on these weapons. (Uncl)

<sup>23</sup>

Project 30061, (Uncl) "Characteristics and Performance of the Soviet 23-mm NR Automatic Aircraft Gun." TR-AE-34 to be released.

Another technical report on the Soviet N-37 automatic aircraft gun<sup>24</sup> is also in publication and scheduled for July distribution. (Uncl)

Evaluation of the French 3 CGF revolver<sup>25</sup> will get underway as soon as the contract is let. This gun is the French version of the World War II Mauser MK-213 which has served as the model for revolver gun development in many countries. A comparison will be made with the USAF T-160 to determine any design details that are desirable for the improvement of USAF revolver weapons. (Uncl)

(Uncl) Landing Gear Struts.<sup>26</sup> Materials and manufacturing methods of the YAK-11 and MIG-15 landing gear struts were reported in the AFIE technical report released 13 April 1954.<sup>27</sup> This report, based on the data furnished by the Menasco Manufacturing Company, under a dollar-a-year contract, fulfilled the requirements of this project which was closed 6 May 1954. (Uncl)

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<sup>24</sup> Project 30076, (Uncl) "Soviet N-37 Automatic Aircraft Gun," TR-AE-35 to be released.

<sup>25</sup> Project 30082, (Uncl) "Evaluation of Foreign Aircraft Weapon," 5 May 54. Purchase Request 94823, 22 Apr 54, for contract with Armour Research Corporation. Contract pending "sole source" justification.

<sup>26</sup> Project 30044, (Uncl) "Evaluation of Foreign Landing Gear Shock Struts," Project Closed.

<sup>27</sup> TR-AE-25.

(Uncl) Instruments:

Study of the aircraft and guided missile instruments being used or developed by the USSR and its satellites and the NATO block countries<sup>28</sup> is in process. An interim report, summarizing USSR and satellite activities in this area of specialization, is due from the contractor<sup>29</sup> in July 1954. According to the contractor, very little good technical information on guidance and control or instrumentation has been obtained from Intelligence Reports. However, other sources, such as previous studies of various Soviet instruments and extracts from Soviet books on the subject, are providing information of value. (~~CONFIDENTIAL~~) (U)

Coverage of the NATO bloc countries will be performed by ATIC personnel on a low-priority basis, instead of by the contractor as originally planned. (Uncl)

Because of the extensive traveling performed during 1953 by contractor personnel for purposes of domestic familiarization, requests for approval of contractor travel were scrutinized most carefully during this period and two proposed trips to West Coast facilities were disapproved. (Uncl)

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<sup>28</sup> Project 30057, (Uncl) "Status of the Technology of Aircraft and Guided Missile Instrumentation in the USSR, Its Satellites, and Other Countries," 25 May 53

<sup>29</sup> Battelle Memorial Institute.

A unique flight and navigation instrument, the Swedish KH-29 universal gyroscope, is being analyzed under another project.<sup>30</sup> The Wright Air Development Center is making tests of this equipment. An ATIC technical report on this subject will be released approximately October 1954. (Uncl)

(Uncl) Mechanical Equipment.<sup>31</sup> Study of aircraft and guided missile mechanical equipment in the USSR, its satellites, and other European countries is in process. Definite plans for completing this research will be made when the interim report is received from the contractor. On 22 January 1954, the contractor furnished a rough draft copy of a brief report of documents extracted but could not accomplish the interim report scheduled for 15 April. Date for delivery of interim report has been extended to 29 July. (Uncl)

(Uncl) Electrical Equipment.<sup>32</sup> Evaluation of the status of aircraft and guided missile electrical equipment in the USSR and

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<sup>30</sup>

Project 30081, "Evaluation of Swedish KH-29 Universal KH-29 Universal Gyroscope," initiated 24 Mar 54, approved 19 Apr 54.

<sup>31</sup>

Project 30066, "Status of Technology of Aircraft and Guided Missile Mechanical Equipment in the USSR, Its Satellites, and Other Countries," 7 Aug 53. Work being performed by Battelle Memorial Institute, under the "Stork" contract.

<sup>32</sup>

Project 30069, (Uncl) "Status of the Technology of Aircraft and Guided Missile Electrical Equipment in the USSR and Other Countries," 10 Aug 53. Work being performed by Battelle Memorial Institute under the "Stork" contract.



other countries is proceeding at a slower rate than originally planned. The interim report from the contractor, originally scheduled for delivery 15 April, is now expected 1 July. Definite plans for completing this research will be made when the interim report is received. (Uncl)

(Uncl) Photographic Equipment.<sup>33</sup> An ATI study, "The Status and Characteristics of Current Soviet Aerial Photo Reconnaissance Equipment,"<sup>34</sup> the first of three studies on this subject, prepared under contract, was approved for distribution on 17 May 1954. Two other studies, one a comprehensive report on the USSR, the other on satellite countries, are due from the contractor on 1 March and 1 April 1955, respectively. Inquiries from other government agencies prior to issuance of the first study indicated a great degree of interest in this subject. (Uncl)

- (Uncl) Electronic Equipment. The chief projects for evaluating electronic components, in process or planned, are:
- (Conf) 20035, "Soviet Progress in the Development of Millimeter-Wavelength Electron Tubes."
  - (Uncl) 20045, "Air Aspects of Decimeter Communications Systems."

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<sup>33</sup>

Project 30068, (Uncl) "Status of Development and Characteristics of Soviet and Satellite Aerial Photo Reconnaissance Equipment." Work being performed by Battelle Memorial Institute under the "Stork" contract.

<sup>34</sup>

ATI Study 102-AE-54/1-34.

- (u)  
~~(CONF)~~ 20064, "Soviet Missile Guidance and Control Capabilities."
- (u)  
~~(CONF)~~ 20068, "Soviet ECM Capability and Susceptability."
- (u)  
~~(CONF)~~ 20087, "Soviet Magnetrons, Klystrons and Traveling Wave Tubes."
- (Uncl) 20089, "Soviet Electronic Components."
- (u)  
~~(CONF)~~ 20090, "Soviet Magnetic Amplifier Development."

POWER PLANT RESEARCH:

The study of aircraft power plants progressed steadily with the following results:

(Unclassified) Soviet ASH-62ir Engine.<sup>35</sup> One report, TR-AC-19, "Description of Soviet ASH-62ir Aircraft Engine," was distributed 7 January 1954. Another, TR-AC-25, "Soviet ASH-62ir Aircraft Power Plant Performance Characteristics," has been received from the contractor and is in publication. (Unclassified)

(Unclassified) Soviet VK-107A Engine.<sup>36</sup> Information contained in the rough draft copy of TR-AC-29, "Soviet VK-107A Aircraft Power Plant Performance Characteristics," received from the contractor, Lycoming-Spencer, lead to this project being expanded to include testing of the detonation characteristics of this engine using the Soviet specified fuel. Completion and publication of this technical report has been withheld until these additional tests are completed. ~~(CONFIDENTIAL)~~ (u)

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<sup>35</sup> Project 10101 16 Jun 51.  
<sup>36</sup> Project 10105 15 Jun 51.

(Uncl) Domestic and Foreign Turbojet Engines.<sup>37</sup> This project was completed with the distribution of ATI Study No. 102-AC-53/7-100, "Foreign and Domestic Turbojet Engines," 7 May 1954. (Uncl)

(Uncl) Soviet Power Plant Developments.<sup>38</sup> Original plan was to publish one study which would compare the developments of the other nations in rocket power plant development with that of the USSR. Collection difficulties, especially with respect to developments in France, have hampered completion of this plan. Two separate studies, one on the USSR and one on Great Britain, are now being prepared so as not to delay making information on these two countries available. A third study, one on France, containing the partial information available to date, will be prepared following these other two studies. (Uncl)

(Unclassified) Soviet RD-500 Turbojet Engine.<sup>39</sup> TR-AC-32, "Description and Performance of the Soviet RD-500 Turbojet Engine," is in publication and will be distributed early in the next period. (Unclassified)

(Uncl) Soviet Jump 022 Turbojet Engine.<sup>40</sup> Since the initiation of this research, 25 March 1954, a report on the development and capabilities of this engine has been drafted and is in review. (Uncl)

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<sup>37</sup> Project 10120, closed.  
<sup>38</sup> Project 10165, 20 Nov 52.  
<sup>39</sup> Project 10186, 3 Dec 53.  
<sup>40</sup> Project 10193, 25 Mar 54.

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(Uncl) Soviet Ramjet and Pulsejet Engines.<sup>41</sup> Interpolation of performance of these engines, initiated 28 October 1951, was approximately 60 percent complete when higher priority work on Soviet turbojet engines caused suspension of the ramjet-pulsejet research. (Uncl)

(Uncl) Foreign Propellers.<sup>42</sup> Five technical reports relating to this subject have been approved and will be published in the next period. These reports are: TR-AC-30, "Evaluation of Soviet Propeller VISH 107 10;" TR-AC-34, "Soviet AV-5L-24 Propeller Analysis;" TR-AC-35, "Soviet AN-7N-161 Propeller Analysis;" TR-AC-36, "Soviet V-501-D-81 Propeller Analysis;" TR-AC-38, "Evaluation of Soviet Propeller VISH-111-V-20." (Uncl)

(Uncl) Soviet VK-1 Turbojet. ATI Study No. 102-AC-53/10-34, "Soviet VK-1 Turbojet Engine Development Capabilities," distributed 9 February 1954, terminated project 10168. (Uncl)

(Uncl) Other Power Plant Projects. Power plant research reported under other groupings are projects 10179 and 10187 under the MIG-15;<sup>43</sup> projects 10151 and 10185 under handbooks and manuals.<sup>44</sup> (Uncl)

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<sup>41</sup> Project 10134, 28 Dec 51.

<sup>42</sup> Project 10107, 17 Jul 51.

<sup>43</sup> p. 83.

<sup>44</sup> pp. 113-114.

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AIRCRAFT FUELS AND LUBRICANTS RESEARCH:

Progress in the study of aircraft fuels and lubricants is as follows:

(Uncl) Analysis and Evaluation of Foreign Aircraft Fuel and Lubricant Samples.<sup>45</sup> ATIC Study No. 102-AC-53/14/34, "Soviet Aircraft Fuels and Lubricants Sample Analysis Report," incorporating data for a two-year period, January 1952 to January 1954, is in publication. Hereafter, quarterly reports will be issued to keep this data on a more current basis. A contract is being let to a petroleum laboratory for assistance in analyzing the backlog of fuel samples now on hand. Additional assistance is being sought from laboratories of the military establishments in order to prevent backlogs from accumulating in the future. (Uncl)

(Uncl) Chemical Compounds Investigated as Rocket Fuels.<sup>46</sup> TR-AC-31, "Theoretical Calculation of the Performance of Rocket Propellants Developed in a Foreign Country," was distributed 23 April 1954. This report represents the first portion of the theoretical performance calculations being performed under contract.<sup>47</sup> Three reports are planned. The second one is scheduled for publication in August and the last one in November 1954. On 15 June 1954, ATIC and contractor representatives visited West Coast rocket propellant manufacturers and users to consult with scientists on propellants used by the Soviets and to inspect U.S. rocket facilities. (Uncl)

<sup>45</sup> Project 10095, 21 Mar 51.

<sup>46</sup> Project 10172, 16 Oct 53.

<sup>47</sup> "Stork" contract with Battelle Memorial Institute.

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<sup>48</sup>  
(Uncl) Catalytic Cracking. Illness of the project monitor delayed somewhat the anticipated progress on this project. The Air Information Division of the Library of Congress is presently surveying scientific literature for Soviet research papers on catalysis that deal with the cracking of petroleum fractions. A completion date for the study on this subject cannot be estimated until it can be determined how much data will be available through the Library of Congress and other sources. (Uncl)

<sup>49</sup>  
AIR-WEAPON TREND STUDIES. Very little progress was made in the study of trends in the various classes of air weapons, chiefly because of higher priority workload and lack of sufficient information to warrant publication. What data was developed during the period will be included in the annual publication, "Estimated Characteristics of Soviet Air Weapons." (Uncl)

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<sup>48</sup>  
Project 10184, 23 Dec 53.

<sup>49</sup>  
Projects included in the trend studies are 10079, 10138, 10139, 10141, 10157, 10182, 10190, 10191. Projects 10190 and 10191 were established during the current period, in February 1954.

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METHODS OF ANALYSIS:

Work accomplished in improvement of methods of analysis includes:

(Uncl) Aircraft Group Performance Methods.<sup>50</sup> During the first three months of the period, a method of using electronic computers for calculating aircraft performance was developed and tested. Results of these preliminary tests have lead to action being taken to secure one of these computers for the Center. Because of higher priority work, completing of the Performance Methods Handbook has been delayed. (Uncl)

(Uncl) Weight Estimation.<sup>51</sup> Improved methods and curves for estimating weights of propeller and jet-propelled bombers and fighter craft have been developed and were used effectively to estimate the weights of the new Soviet bombers. Better methods for estimating AMPR weights<sup>52</sup> were also devised and used in calculating weights for all known USSR aircraft. (Uncl)

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50  
Project 10092 , 16 Mar 51.

51  
Project 10158 , 7 Jul 52.

52  
Empty airframe weight

100  
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GUIDED MISSILE RESEARCH:

Very little activity occurred in guided missile research as a subject independent of the other aircraft subjects. Status of the guided missile research is as follows:

(Uncl) Soviet Guided Missiles, Aircraft, Ship or Submarine Launched, Mass Destruction Warheads.<sup>53</sup> A Navy Intelligence Report has been published on this same subject. Since no new intelligence information has been received, this project is in deferred status.

(Uncl)

(Uncl) Soviet Surface to Surface Guided Missiles.<sup>54</sup> ATI Study No. 102-AC-53/11-34, initially drafted in October 1953, is being revised to conform with a later conceived method of presenting the information. (Uncl)

(Uncl) Performance Calculation Methods for Guided Missiles.<sup>55</sup> This is not a "research" project in the true sense of the word. It was primarily established to account for and cost the manhours expended in performing engineering calculations for data used in other guided missile projects. No additional manhours have been requested for this project for fiscal year 1954 as it is scheduled for closing within the next six months. (Uncl)

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<sup>53</sup> Project 10138, 13 Feb 52.

<sup>54</sup> Project 10139, 3 Apr 53.

<sup>55</sup> Project 10152, 9 Jun 52.

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(Uncl) Soviet Surface-to-Air Guided Missiles.<sup>56</sup> Preliminary work was well along on this project when higher priority work in relation to National Intelligence Estimates<sup>57</sup> and the guided missile portion of the future estimates study<sup>58</sup> caused 10182 to be deferred. (Uncl)

TECHNOLOGIES AND SCIENCE STUDIES:

Technologies and science studies undertaken by the Air Technical Intelligence Center include a variety of subjects in the fields of industry, air weapon materials, and pure science. Progress being made in these studies is as follows:

Metallurgy:

The status of aircraft metallurgy in the USSR, its satellites, as well as in other Western European countries is being studied. (Uncl)

(Uncl) USSR and Satellites.<sup>59</sup> Two studies on the USSR were distributed during this period and two others are in preparation. The study on stainless steels<sup>60</sup> was released 5 February 1954, and the one on titanium,<sup>61</sup> 23 March 1954. The ones on research and development and aircraft quality steels have been completed and are being coordinated. (Uncl)

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<sup>56</sup> Project 10182, 24 Nov 53.

<sup>57</sup> Project 10194, 9 Apr 54.

<sup>58</sup> Project 10140, 22 Jan 52.

<sup>59</sup> Projects 30022 and 30065. Work being performed by Battelle Memorial Institute under the "Stork" contract.

<sup>60</sup> ATI Study No. 102-AE-53/3-34.

<sup>61</sup> ATI Study No. 102-AE-53/2-34.

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The summary report on this research, received from the contractor on 4 February 1954, has been found unsatisfactory in its present form and will probably be rewritten within the ATIC. A separate study on the "Status of Welding Technology in the USSR," added during this period, was received from the contractor on 2 June 1954 and is presently being reviewed by the Materials Laboratory of the Wright Air Development Center. An addenda to the report on the USSR is due from the contractor, 1 July 1954. Coordination copies of studies on East Germany, Czechoslovakia, and Hungary are due 31 August 1954. In connection with this subject during the period, Center personnel visited various AEC installations and U.S. industrial plants to obtain information about new materials of construction, physical metallurgy and alloying of transistor metals, and titanium. (Uncl)

(Uncl) Western Europe.<sup>62</sup> In June 1954 the NATO bloc countries were included in this research. In April 1954 while the advisability of including these countries was being considered, the project monitor conferred with Professors Wulff, Wagner, and Grant at the Massachusetts Institute of Technology relative to information obtained by these men during their recent European travels. (~~CONFIDENTIAL~~) (u)

<sup>62</sup>

Project 30077, initiated 22 Jan 54 but not approved until Jun 54. Same contractor as for 30022 and 30065.

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~~CONFIDENTIAL~~

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(Uncl) Airframes and Engines. Investigation of the materials application in Soviet airframes and engines was completed with the distribution of the contractor's report which computed the gross input materials required to manufacture certain types of airframes and engines. This report was released to only the Directorate of Intelligence (Targets), the National Security Agency, and the Central Intelligence Agency.<sup>63</sup> (~~CONFIDENTIAL~~) (U)

(Uncl) Rubber and Plastics:

The research on this subject includes two overall studies on the status of development of high polymer materials in the USSR and its satellites,<sup>64</sup> and in the NATO<sup>65</sup> bloc countries and two more specific studies, one on rubber technology<sup>66</sup> and one on synthetic resins<sup>67</sup> as applied to aircraft in the USSR. (Uncl)

ATI Study No. 102-AE-54/2-34, "Aircraft Rubber Technology in USSR," with appendix in a separate volume was sent to the Directorate of Intelligence for coordination 18 June 1954. A more limited distribution will be given to the appendix than to the basic study. (Uncl)

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<sup>63</sup>

Project 30055. Work performed by Cornell Aeronautical Laboratory under call contract. Call Letter No. 1 was issued for this specific report. /16 Dec 52.

<sup>64</sup>

Project 30078, initiated 21 Apr 54, approved 14 May 54.

<sup>65</sup>

Project 30083, initiated 22 Apr 54, approved Jun 54.

<sup>66</sup>

Project 30049, 7 Jul 52.

<sup>67</sup>

Project 30046, 21 May 52.

The plastics study<sup>68</sup> was sent to publication 13 April 1954 and will be ready for distribution in the near future. Since this study contains only the chemical aspects of plastics, it will be given limited distribution to only those agencies having immediate need for a collation of information on this subject to date. Further research will be necessary before use may be made of this material in electronic and aerodynamics research. (Uncl)

For the overall study on Soviet high polymer materials, two volumes are planned, one on the USSR and one on its satellites. The number of volumes to be issued on the NATO bloc countries has not been decided and will depend primarily on the amount of material available after this research is well underway. These reports will combine a large amount of unevaluated and uncollated data previously accumulated, particularly on the USSR, as well as a number of piecemeal studies and reports previously issued, many of which are in need of revision. (Uncl)

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<sup>68</sup>

ATI Study No. 102-AE-53/10-34.

(Uncl) Ceramics.<sup>69</sup> The study of ceramics and cermets in the USSR, began under project 30045 now closed, is being continued under a new project, 30084, established during this period. This subject was reopened in the hopes of finding solutions to the current problems pertaining to ceramics in USAF air weapons and electronic components. The absence of contractor personnel on an overseas journey will delay receipt of coordination draft of the study approximately 90 days beyond the initially scheduled date of 1 July 1954.

(Uncl)

(Uncl) Aircraft Industry:<sup>70</sup>

A formal project to estimate the limitations imposed on the Soviet's ability to launch heavy bomber attack on the USA by the level of its industrial technology was established during this period.

~~(CONFIDENTIAL)~~ (u)

In preparation for this work, contractor personnel visited the Douglas Aircraft Company, Santa Monica, California, and the Boeing Airplane Company, Seattle, Washington, to become familiar with U.S. materials and manufacturing methods pertinent to the design and production of heavy bombers. The scope of the project needs to be defined before deadline dates for submission of the study can be set. (Uncl)

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<sup>69</sup> Project 30084, initiated 5 May 54, officially approved 24 May 54. Work being performed by Battelle Memorial Institute under the "Stork" contract.

<sup>70</sup> Project 30080, initiated 25 Mar 54, approved May 54. Work being performed by Battelle Memorial Institute under "Stork" contract.

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(Uncl) Precision Industry:

The study of Soviet capabilities in manufacturing aircraft instruments<sup>71</sup> and the development of analog ratios for analysis of vacuum tube production facilities<sup>72</sup> continued during the period, but a number of problems prevented accomplishment of any actual end item. Study of critical production factors in the Soviet precision industry<sup>73</sup> was deferred until the study of capabilities is completed, since the capabilities study will furnish information needed for the production study. (Uncl)

The capabilities study, originally scheduled for delivery 15 February 1954 was delayed because of higher priority requests placed with the contractor. Review of the summary of this study in May 1954 revealed several sections would have to be rewritten. The study is currently scheduled for delivery 31 August 1954. (Uncl)

Distribution of the study on analog ratios could not be accomplished in May 1954 because it was found, after preliminary data had been collected, that the problem was much more complex than originally estimated. 1 January 1955 is the current target date for the contractor's report. The cooperation of U.S. manufacturers in the electronics industry has been outstanding in relation to this project. (Uncl)

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<sup>71</sup> Project 30050. Work being performed by Battelle Memorial Institute under the "Stork" contract. Est. 31 Jul 52

<sup>72</sup> Project 30062. Battelle Memorial Institute, "Stork" contract. Est. 30 Jun 53

<sup>73</sup> Project 30042. Battelle Memorial Institute, "Stork" contract. Est. 14 FEB 52

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(Uncl) Nuclear Energy.<sup>74</sup> Collection of data on the status of the nuclear energy program in the USSR progressed steadily. In April and May, the project monitor and the chief of the Special Weapons Section visited various aircraft contractors and AEC facilities to obtain technical assistance in determining Soviet nuclear propulsion indicators; to obtain information about new materials of construction, metals applications and metallurgical problems pertaining to atomic power plants; and to review current European metallurgical research.

(Uncl)

(Uncl) Geophysics.<sup>75</sup> Research to determine what intelligence contributions may be obtained from studies of the upper atmosphere was practically at a stand still during this period because of delay in renewal of contract for this work. (Uncl)

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74

Project 30051. A continuous type project for which no formal publication is planned. Collection of data being accomplished for the AFIC by the Battelle Memorial Institute under the "Stork" contract. Contractor submits semi-annual summaries of new data incorporated in his files on this subject. Data accumulated under this project will be used in studies and reports prepared under other projects. Established 8 Aug 52.

75

Project 20063, "Intelligence Contributions from Studies of the Upper Atmosphere." Purpose and plan of this project reported in 1 Jul - 31 Dec 53 edition of History of the Air Technical Intelligence Center, pp 76-77. Established 10 Jul 53.

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(Uncl) Other Technologies and Science Studies:

Other significant research in technology and science underway or planned is indicated by the titles of the following projects:

20070, "Soviet Capabilities in Electronic Measuring Techniques and Test Equipment."

20071, "Mathematical Progress in the Communist and Free World."

20074, "Soviet Nonlinear Mechanics, Nonlinear Differential Equations and Stability Theory."

20079, "Status of Automatic Control in the Soviet Union and Its Application to Guided Missile Control."

20081, "Infrared Capabilities."

20086, "Radar and Infrared Camouflage Technology."

20088, "Electronic Aspects of Soviet Solid-State Physics Research."

20090, "Soviet Magnetic Amplifier Development."

~~(CONFIDENTIAL)~~ (u)

(Uncl) SIGNAL ANALYSIS:<sup>76</sup>

During the period, the analysis of non-communications intercepts to determine the extent of use in foreign electronic equipment concentrated primarily on data collected by special ferret missions.

~~(CONFIDENTIAL)~~ (u)

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<sup>76</sup> Project 20024. For previous report on this project, see History of Air Technical Intelligence Center, 30 Jun - 31 Dec 53, pp 68-72. Established 18 Jan 51.



In connection with this work, a digital pulse analyzer, the specifications for which were developed during the preceding period,<sup>77</sup> was received and is currently being readied for use. (~~CONFIDENTIAL~~) (U)

The crystal video intercept receiver,<sup>78</sup> acquired during the preceding period, was flight tested by the Wright Air Development Center and found to be satisfactory. A very high frequency receiver, QRC-7, Model 1, was also flight tested by Wright Air Development Center. (UNCLASSIFIED)

The status of the video recorder and the analogue PRF indicator, remained the same as reported for the previous period.<sup>79</sup> (Uncl)

Some progress was made in the problems relating to analysis of Della Rosa AN/APD-4 recordings.<sup>80</sup> Contract has been let for a Benson-Lehner BOSCAR modified to accomplish the AN/APD-4 recordings, but the machine has not been received. No further progress was made in the machine computation of data pertaining to direction finding by time measurement.<sup>81</sup> (Uncl)

A reference file of typical electronic signals has been proposed in order to reduce the time required in determining the signal characteristics from equipment whose signals have not been previously recorded. (Uncl)

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<sup>77</sup> History of Air Technical Intelligence Center, 30 Jun - 31 Dec 53, p. 71

<sup>78</sup> Ibid, p. 72

<sup>79</sup> Ibid, p. 71

<sup>80</sup> Ibid, p. 72

<sup>81</sup> Ibid, p. 71

The ATIC is taking over the work of developing machine methods for analysis of intercept data, previously carried on by the USAFSS.<sup>82</sup> During the period, conferences were held with prospective contractors, but no definite plans have been completed. (Uncl)

(Uncl) INSTRUMENTATION OF EXPLORATORY TYPE ELECTRONIC RECONNAISSANCE AIRCRAFT B-29.<sup>83</sup> The first flight tests to determine acceptability of the plane were completed during this period. A second series of flight tests to determine the capability of this plane for special ferret missions will begin in July 1954. ~~(SECRET)~~ (U)

(U) ~~(SECRET)~~ EVALUATION AND MODIFICATION OF AN AN/PRR-4 ELECTRONIC INTERCEPT RECEIVER:<sup>84</sup>

The purpose of this project is to evaluate and accomplish minor modifications in an AN/PRR-4 intercept receiver to make it more adaptable to USAF requirements. ~~(SECRET)~~ (U)

To date, one model has been modified by a transistor amplifier and a Minifon Recorder; another by an improved transistor and amplifier and a tape recorder consisting of a modification of the Magamite manufactured by the Amplifier Corporation of America. Experience of the ATIC and other intelligence groups indicates that the AN/PRR-4 is not satisfactory because of tuning difficulties, plus inconvenient packaging. Further work will be required before an improved intercept receiver is accomplished. ~~(SECRET)~~ (U)

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<sup>82</sup>

History of the Air Technical Intelligence Center, 1 Jul - 31 Dec 53, p 70.

<sup>83</sup>

Project 20067. See 30 Jun - 31 Dec 53 edition of the History of the Air Technical Intelligence Center, pp 75-76. 10 Aug 53.

<sup>84</sup>

Project 20075. Not included in previous editions of the history. 12 Jan 54.

(Uncl) TECHNICAL INTELLIGENCE ASPECTS OF EAST-WEST EMBARGO

ITEMS.<sup>85</sup> The purpose of this project is to evaluate the technical aspects of electronic items included in or proposed for the embargo lists of various foreign countries. The ATIC reviewed various items listed on the International Trade Embargo List (Electronics) and prepared briefs which were used by the Department of Defense in establishing the U.S. stand on these items. In addition, the project monitor, Mr. F. G. Kouri, served as technical advisor to both the Department of Defense and the Department of Commerce at the international meeting in Paris during May of this year where these items were discussed. The firm stand taken by the U.S. delegation at this meeting resulted in the retention of a number of strategic items on the embargo list in spite of strong opposition from other countries.

~~(SECRET)~~ (u)

(Uncl) COLLECTION AND ANALYSIS OF LOW FREQUENCY AND VERY LOW

FREQUENCY DATA.<sup>86</sup> The purpose of this project is to determine the value and means of collecting data on Soviet utilization of low, and very low radio frequencies and to analyze the material obtained. It is an outgrowth of the work performed by Professor W. O. Schumann of the Technische Hochschule, Munich, Germany, under a former project. Professor Schumann's work revealed there was a definite need for further research on this subject. This project is outlined in detail in an ATIC Top Secret document.<sup>87</sup> ~~(SECRET)~~ (u)

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<sup>85</sup> Project 20060

<sup>86</sup> Project 20078, supersedes and expands Project 20006 reported in the 30 Jun - 31 Dec 53 edition of the History of the Air Technical Intelligence Center, p. 74. Established 8 Dec 53.

<sup>87</sup> Air Technical Intelligence Center TS 3-264.

(Uncl) COUNTERMEASURES CONSULTING SERVICES.<sup>88</sup> During the period, the contractor made one additional trip to Europe as consultant for the ATIC and the USAFSS. Studies of new methods of collecting guided missile information are well underway and a contract is being negotiated to continue this program. (Uncl)

(Uncl) "MOON":<sup>89</sup>

The purpose of this project is to interrogate German scientists, returned from the USSR, in order to obtain maximum details on their work on radio navigation, performed while in the USSR, particularly on the "Moon" system. ~~(CONFIDENTIAL)~~ (u)

From 10 May to 14 June 1954, the project monitor, Mr. J. E. Wagner, was in Germany assisting with the interrogation of Paul Kotowski and Helmut Feussner who were key personnel utilized by the Soviet Union to develop its low frequency hyperbolic transit time navigation system which has been given the nickname "Moon." The extreme importance of the Soviet's "Moon" system as a precise tactical navigation aid covering all of Western Europe made desirable direct interrogation of these two men by an ATIC representative. ~~(CONFIDENTIAL)~~ (u)

Since this project was established for the sole purpose of interrogating these two German scientists, it is now considered essentially completed. (Uncl)

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88

Project 20062, reported in the 30 Jun - 31 Dec 53 edition of the Air Technical Intelligence Center History, p. 75. Est. 5 May 53.

89

Project 20083, established during this period. This project relates to the REG program reported under the Technical Requirements Division, pp. 55-57 of this edition. ~~(CONFIDENTIAL)~~ (u) Est. 19 May 54.

MANUALS AND HANDBOOKS:

Activity pertaining to manuals and handbooks was as follows:

(Uncl) Performance and Characteristics Handbook, USSR

Aircraft.<sup>90</sup> Revision of the Soviet Aircraft Handbook on an annual basis was discontinued. Instead, revisions are being made on a continuing basis and are being published as completed. Revisions of major importance completed or under preparation during the reporting period were the new MIG-17 (Type-38) jet fighter and Type-37 and Type-39 jet bombers. Also revised was the Type-31 bomber which is estimated to be equipped with turboprop engines in place of the conventional reciprocating type. A plan to include the Soviet satellite nations in this handbook is being considered. (~~CONFIDENTIAL~~)(u)

(Uncl) Special Study of USSR Aircraft for Escape and

Evasion Bulletin.<sup>91</sup> TR-AE-42, "IL-10 Pilot's Operating Manual," was distributed 24 May 1954. Because of higher priority projects, work on the MIG-15 manual was deferred during this period, but will be resumed in the next. (Uncl)

(Uncl) Preparation of Handbooks on Foreign Aircraft Other

than Soviet.<sup>92</sup> ATI Study No. 102-AC-52/52-37, "A Study of British Aircraft," was released 25 January 1954. Toward the latter part of June 1954, ATI Study No. 102-AC-53/12-99, "A Study of the Aircraft

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<sup>90</sup> Project 10128, established 26 Oct 51.

<sup>91</sup> Project 10135, established 8 Apr 52.

<sup>92</sup> Project 10150, established 9 May 52.

Program of Scandinavian Nations," was distributed. Loss of key technical research personnel and revision of plans for these handbooks prevented further progress on this project. (Uncl)

(Uncl) Maintenance of Handbooks on Foreign Aircraft Other than Soviet.<sup>93</sup> This project was initially established to keep current the handbooks prepared under project 10150. No revisions were made during the reporting period, chiefly because available manhours had to be used for higher priority projects. Future action hinges a new plan for aircraft handbooks which is under consideration. (Uncl)

(Uncl) Friendly Nations Engines Handbook.<sup>94</sup> The French section is ready for publication as ATI Study No. 102-AC-53/4-100, "Characteristics of Aircraft Engines of Foreign Countries (other than Soviet and Satellites)." The material for the remaining section, --Argentina, Australia, Belgium, Canada, Italy, Spain, Sweden, and Switzerland -- has been drafted and, when ready, will be published as additions to this basic study. (Uncl)

(Uncl) Maintenance of Known Soviet Aircraft - Engine Handbook.<sup>95</sup> This project, initiated 2 December 1953, keeps current the handbook of known Soviet aircraft engines.<sup>96</sup> As soon as art work, now in preparation, is completed, the revised performance sheet for the RD-500 engine will be ready for release. (Uncl)

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<sup>93</sup> Project 10169, established 15 May 53.

<sup>94</sup> Project 10151, established 2 Dec 53.

<sup>95</sup> Project 10185, established 2 Dec 53.

<sup>96</sup> ATI Study No. 102-AC-53/3-34, published under a former project 10112, now closed.

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(Uncl) Soviet and Satellite Radar, Communications and Electronic Navigation Handbooks:<sup>97</sup>

These projects were initiated 9 April 1953 to meet a requirement of the Directorate of Intelligence for technical handbooks containing performance characteristics of currently operational Soviet and satellite radar, communications, and navigation equipments. This work is being done under contract by the Capehart-Farnsworth Company.<sup>98</sup> (Uncl)

A preliminary copy of the radar handbook has been checked. The final draft is expected during the early part of July 1954. (Uncl)

For the navigation handbook, the contractor has submitted formats for the various types of communications equipment. These formats are currently being checked for suitability. (Uncl)

(Uncl) Foreign Aircraft and Guided Missile Equipment Data.<sup>99</sup>

This project, which was established to provide a continuous compilation of data on the performance and characteristics of equipment in significant foreign aircraft, proceeded on an orderly but low-priority basis during this period. Information, as secured, is being assimilated. Immediate use is being made of this information in answering specific requests from other defense agencies. Later, this data will be used in a handbook on aircraft equipment. (Uncl)

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<sup>97</sup> Projects 20059, 20060, 20061, established May 53.

<sup>98</sup> History of the Air Technical Intelligence Center, 1 Jul - 31 Dec 53, p. 77.

<sup>99</sup> Project 30067, established 10 Aug 53.

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(Uncl) Revision of Characteristics and Performance Handbook, Foreign Aircraft Armament. <sup>100</sup> Chapters "F" and "G" for the revision of Sections I and II of the current edition of the Aircraft Armament Handbook were forwarded to AFOIN-2B3 (Integration Division, Director of Estimates, D/I) on 26 May 1954. Further work on revision was suspended until accurate test results were obtained for incorporation into this handbook. (Uncl)

CONTRIBUTIONS TO NON-ATIC PUBLICATIONS:

The Air Technical Intelligence Center contributes material for intelligence publications issued by the Directorate of Intelligence and others. The chief contributions made during the period are:

(Uncl) Directorate of Intelligence, "Air Intelligence Studies." <sup>101</sup>

Studies on Australia, Finland, France, the Netherlands, Spain, and Switzerland were contributed. Appendix B, "Development of Modern Air Defense Equipment," the ATIC's contribution to AIS 2-20, "Soviet Bloc Air Defense System," (a part of the PVO Force Study) was submitted 12 February 1954. Appendix B, "Weapons and Equipment," the ATIC's contribution to AIS 2-15/1, "Soviet Tactical Aviation," (also a part of the PVO Force Study) was forwarded 29 April 1954. (Uncl)

(Uncl) National Intelligence Survey. <sup>102</sup> Material on the United Kingdom and Rumania was completed. Material on Bulgaria and Yugoslavia is under preparation. (Uncl)

100

Project 30073, established 15 Oct 53.

101

Projects 10183, 9968, and 9969.

102

Project 10175, established 1 Jul 53.



(Uncl) National Intelligence Estimates Program.<sup>103</sup> The first study completed for the NIE program consisted of material for NIE 12-54, "Probable Developments in the European Satellites as They Affect the Bloc Capabilities through Mid-1956." Most of the material for this study was prepared by Battelle Memorial Institute under ATIC contract. ATIC contributions to National Intelligence Survey on Poland and Hungary, completed prior to this period, were also furnished as pertinent material for the NIE. (Uncl)

MISCELLANEOUS:

(Uncl) "Hope Chest."<sup>104</sup> This was a long range planning project completed prior to this period but not officially closed until June 1954. The paper prepared by the project monitor has received considerable favorable comment. (Uncl)

(Uncl) Soviet Aircrew Equipment.<sup>105</sup> The rough draft of the ATIC study produced as a result of this project did not include sufficient new information to warrant its publications; therefore, the project was terminated 7 April 1954. The major objectives of the project were satisfied by release of the following technical reports:

TR-AE-24, "Analysis of the YAK-23 Aircrew Equipment."

TR-AE-44, "Analysis of the YAK-23 Ejection System."

TR-AE-45, "MIG-15 Ejection System."

TR-AE-52, "MIG-15 Oxygen System."

~~(CONFIDENTIAL)~~ (u)

103

Project 10194, established 9 Apr 54.

104

Project 30053, established 23 Oct 52 .

105

Project 30060, cancelled.

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(Uncl) Stalin Prize Awards.<sup>106</sup> Since Stalin's death, no Soviet announcement of these awards has appeared. Therefore, if these prizes are not resumed, the study on this subject will not be released because it would have only historical significance. (Uncl)

(Uncl) Evaluation of Aircraft Equipment.<sup>107</sup> The call contract, with the Stratos Division, Fairchild Engine and Airplane Corporation, was allowed to expire 30 June 1954 because no significant items of foreign, pneumatic aircraft equipment were received. The dollar-a-year contract with the Bendix Corporation for analysis of foreign landing gear, wheels, brakes, and fuel systems, let October 1953, was not utilized for the same reason. However, the Bendix Corporation contract is to be extended for fiscal year 1955 in the hopes that their services will be required. ~~(CONFIDENTIAL)~~ (U)

(U) ~~(CONFIDENTIAL)~~ Survey of the Field of Soviet Kinematics.<sup>108</sup>

As soon as a limited number of the contractor's final report is published, this project will be terminated. (Uncl)

(Uncl) Soviet Aircraft Maintenance.<sup>109</sup> A new number, ATI Study 102-AC-54/3-34, has been assigned to the study being prepared on this subject since publication was not accomplished in 1952 as originally planned. Reworked draft of this study will be ready for coordination in July 1954. (Uncl)

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<sup>106</sup> Project 10164. Pending ATI Study No. 102-AC-53/8-34. <sup>DRW EST</sup> 18 Nov 52.

<sup>107</sup> Projects 30063 and 30070.

<sup>108</sup> Project 10110, established 17 Jul 51.

<sup>109</sup> Project 10143, established 7 Feb 52.

## TECHNICAL ANALYSIS DIVISION

### PROJECTS AND PRODUCTION RECORD

1 Jan - 30 Jun 54

PROJECT ACTIVITY. Quantitatively, the figures below summarize project activity for the period 1 Jan 54 to 30 Jun 54.

	<u>Approved</u>	<u>Completed</u>	<u>Active as of 6-30-54</u> <sup>110</sup>
Aircraft and Propulsion	9	6	48
Electronics	14	2	36
Weapons and Industry	5	7	26
Technical Analysis Div	<u>3</u>	<u>0</u>	<u>15</u>
TOTAL	31	15	125

(Uncl)

PRODUCTION RECORD. The following ATIC publications and other end products were issued in the cited technical fields during the six months covered:

	<u>Aircraft &amp; Propulsion</u>	<u>Electronics</u>	<u>Weapons &amp; Industry</u>	<u>ATIA</u>	<u>Total</u>
ATIC Studies	6	0	2		8
Technical Reports	5	4	14		23
Preliminary Reports & Foreign Equipment	0	5	3		8
Air Intelligence Digest Articles	5	1	22		28
Technical Briefs	239	159	233		631
AF 112's	13	2	5		20
Special Reports				3	3

(Uncl)

110

Includes officially approved projects upon which work has not started and those that have been tentatively completed but not officially closed.

## PERIODIC REPORTS

The Air Technical Intelligence Center publishes three periodic intelligence summaries or reports: "Index of ATIC Project Activity,"<sup>1</sup> "Summary of Significant ATIC Studies"<sup>2</sup> and "Estimated Characteristics of Soviet Air Weapons."<sup>3</sup> (Uncl)

During the period, the "Summary" was changed from a quarterly to a semi-annual report. The ninth edition covering the period 1 July - 31 December 1953 was distributed 7 April 1954. The tenth edition, for 1 January - 30 June 1954, will be released approximately 20 July 1954.

(Uncl)

On 20 May 1954, the "Estimated Characteristics" was changed from a semi-annual to an annual report, change from quarterly to semi-annual having been made prior to this period without change in project title. The next edition is due 3 January 1955. This edition will cover the past, present, and future, --history of the past ten-year development, performance and characteristics of current operational types, and forecast for the next ten-year development. (Uncl)

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<sup>1</sup> Responsibility of Scientific Advisor's Office.

<sup>2</sup> Project 9973, Division Office, Technical Analysis Division.

<sup>3</sup> Project 10140, Responsibility being transferred from Aircraft Branch to Division Office, Technical Analysis Division. Project number will change when transfer is effective.

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The index of projects mentioned in this edition of the Center History, beginning on the next page, has been taken from the "Cumulative Index" and is coded the same: (C) project completed as planned; (T) terminated before completion of project; (P) pending official approval; (D) deferred because of operational difficulties. Projects not coded are active. (Uncl)

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