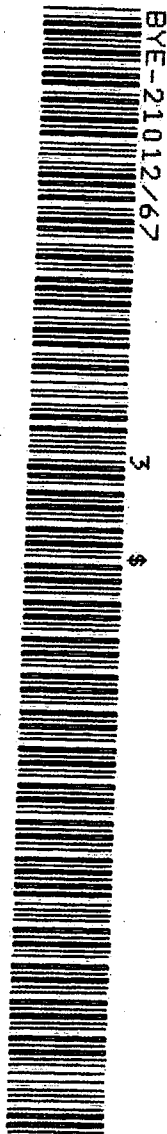


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PHOTOGRAPHIC INTELLIGENCE  
INDOCTRINATION PROGRAM FOR  
MOL AEROSPACE RESEARCH PILOTS



OBJECTIVE: The objective of the indoctrination program outlined below is to develop in the trainees an understanding and appreciation of the role of photographic intelligence in national affairs. In order to meet this objective it will be necessary to provide a general context of intelligence activities in which to place photographic intelligence in particular, and then to describe briefly some of the national policy decisions based wholly or in part on photographic intelligence.

TENTATIVE SCHEDULE:

FIRST DAY

INTRODUCTION

0900 - 0905	Personal Introduction of Astronauts to DOD, USAF, and CIA Officials	
0905 - 0915	Program Purpose and Preview of Schedule	Gen Ferguson or Gen Evans
0915 - 0930	Importance of Man's Role in MOL Program	Dr. Flax

NPIC PROGRAM

0930 - 0950	Keynote Remarks: Importance of Photographic Reconnaissance to National Security	Mr. Helms
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- 0950 - 1000 Coffee Break
- 1000 - 1130 Intelligence Process and Concepts Kent

To introduce the major areas of intelligence interest (as indicated by Priority National Intelligence Objectives), the concepts of raw versus finished intelligence, the flow and treatment of information from its original acquisition to its ultimate consumer, a comparison of human and technical sources, a contrasting of encyclopedic and estimative intelligence, and concluding with an assessment of photography as an intelligence medium.

- 1130 - 1300 Lunch in Secretary of the Air Force Mess
- 1300 - 1400 Introduction to Reconnaissance Systems

To identify and appraise the capabilities and applications of aircraft and drones, satellites, multiple sensor systems, ground photography, and the exploitation equipment used in read-out.

- 1400 - 15 10 Films: "The Inquisitive Angel"  
"From Jennies to Satellites"

- 15 10 - 1530 Coffee Break

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1530 - 1700 The U-2 Story



A continuation in greater detail of some of the events and developments in the ongoing saga of the U-2 aircraft as a collection vehicle.

SECOND DAY

The following international crises or incidents will be presented as illustrations of the role photographic intelligence has played in national policy decisions.

0900 - 1030 Suez, The Congo, Cyprus, Brugioni Lebanon

To demonstrate how photographic intelligence afforded U.S. policy makers an accurate assessment of each situation as it developed.

1030 - 1045 Coffee Break

1045 - 1130 Film: "Inside Vietnam"

1130 - 1230 Photographic Intelligence on Vietnam



(b)(3)

To review recent developments and current status of photographic intelligence in tactical military situation of strategic significance.

1230 - 1400 Lunch

1400 - 1500 The Cuban Missile Crisis Lundahl

This subject speaks for itself; a case in which the national security was clearly

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at stake, and in which decisions were based almost solely on photography.

1500 - 1630

Modern History of Photo  
Reconnaissance

Lundahl

To describe the development of photographic acquisition and interpretation capabilities since 1955; a description of current systems and updating procedures now in effect.

1630

Concluding Remarks

General Evans

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PHOTOGRAPHIC TARGET FAMILIARIZATION

1st Day

Background Information

2 hrs

Geography of the Soviet Union (+ film)

Brugioni

A discussion of the geographical belts and areas, cities, resources, transportation and communications facilities of the USSR.

1 hr

Geography of China

Coverage similar to that above, for China.

1/2 hr

Climatography of the Eurasian Land Mass

Seasonal distribution of cloud cover, and the appearance of major climate areas from overhead photography.

1/2 hr

Mensuration in Photographic Intelligence

A definition of detection and identification, ground resolution, technical intelligence, and some of the modern developments in support of technical intelligence.

(b)(3)

1 1/2 hrs

Target Positioning in Photographic Intelligence

A discussion of geodetic and orbital parameter methods, the requirements for acquisition, and some problems and solutions.

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2nd Day

DEPLOYED MISSILE SITES

1/2 hr

Film: "Rockets in Defense of Peace"

3 hrs

ICBMs, MR and IRBMs



The history of the Soviet rocket forces, deployment of SS-3, -4, -5, -6, -7, and -8 systems, prototypes, abandoned systems, fixed field sites, single silo deployment (SS-9 and -11), and trends and range indicators.

1 1/2 hrs

AMM/ABMs



Significance and characteristics of the system, current deployment, components, recognition features of deployed sites under varying conditions

(b)(3)

1 hr

SAMs



The site configuration, deployment, capabilities, support and recycle facilities for SA-1, SA-2, and SA-3 systems; a brief discussion of the GANEF system, also.

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3rd Day

MISSILE DEVELOPMENT FACILITIES

1½ hrs

Tyura Tam

The test center's mission, location, size and orientation, down-range facilities, coverage history, developmental history, and the moves to space programs.

2 hrs

Kapustin Yar/Vladimirovka

The test center's overall importance, location and identification, history, facilities, systems developed and developing there, and trends for the future.

2 hrs

Sary Shagan

The significance of this center's role in Soviet defensive systems development, location, characteristics and associated features, its comparison to the US land mass, currently active facilities and their significance.

1 hr

Shuang-Cheng-Tzu

This center's location, importance to China, early construction and identification, layout of facilities and range locations, and indications of future uses.

(b)(3)

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4th Day

NUCLEAR TEST AND PRODUCTION

$\frac{1}{2}$  hr

Introduction to Atomic Energy Briefings

A discussion of the requirements for AE intelligence, some historical background, and an introduction to the scope of the topics to be covered.

$1\frac{1}{2}$  hrs

Nuclear Research and Materials Production

A description of plutonium and uranium, Soviet production techniques and sites, Chinese production and progress in the field.

$\frac{1}{2}$  hr

Nuclear Weapons Fabrication and Testing

Background information on weapons fabrication facilities generally (including identification keys), location and description of Soviet and Chinese sites.

1 hr

Semipalatinsk Weapons Proving Ground

Location and description of the facility, its main support, facility no. 2, ground zero 24, new underground test site, a cratering event, the Shagan River site, and the primary underground test facility.

1 hr

Novaya Zemlya Underground Test Site

Location, type of activity, resupply, and significance of the site.

1 hr

Lop Nor Test Site, China

Coverage similar to those above.

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5th Day

AIR ORDER OF BATTLE, ELECTRONICS, BW/CW

1 hr

Naval Facilities and Vessels

The Soviet and Chinese submarine fleets; their composition, capabilities, support facilities, missions, and locations.

1 hr

Soviet Long Range Air Capabilities

Airfields and associated facilities, nuclear facilities, ASM facilities, model identification of aircraft

1½ hrs

Soviet and Chinese Tactical Air

A brief history of Soviet and Chinese tactical and fighter defense airfields and facilities, locations of these fields, and of flight test and research sites.

1 hr

Soviet and Chinese Electronics

Developments and uses of electronics in determining the function of an installation, and of the state of the art in a nation.

1½ hrs

Biological and Chemical Warfare

Field testing sites in the Soviet Union, locations, sizes, and characteristics.

(b)(3)

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6th Day

MILITARY PRODUCTION AND ORDER OF BATTLE

1 hr

Ground Forces Order of Battle

The role of photograph in providing deployment information, and in determining strengths and activities.

1 hr

Missile Production

2 hrs

Aircraft Production

A general description of the aircraft industry, engine production, airframe production, flight testing, and new developments in China and the Soviet Union.

1 hr

Naval Production: Shipyards

The locations, characteristics, capabilities, and activities of submarine construction facilities in the Soviet Union and China.

(b)(3)

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7th Day

WEAPONS STORAGE AND CAMOUFLAGE

1 hr

Soviet Nuclear Weapons Storage



A description of national stockpiles, air-field storage sites, regional sites, MR/IR-BM warhead storage sites, ICBM warhead sites, Tactical SSM and naval nuclear warhead storage.

1 hr

Tactical Missile Storage (SSMs)

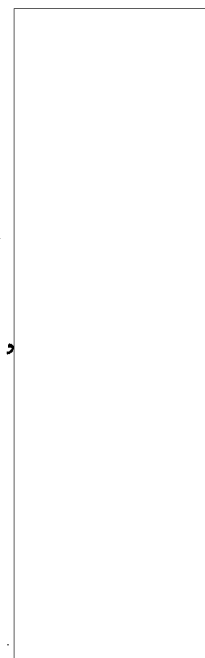


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A rundown of the family of missiles, a review of their deployment with emphasis on associated and support facilities and identification keys.

1 hr

Strategic Missile Storage



The same or similar coverage as for SSMs, above.

1 hr

Naval Missile Storage

The two kinds of naval missiles, special handling equipment for them, location of storage sites, cratology for these missiles, site characteristics.

1 hr

Sensitive Operations Complexes

Definition, why sensitive, locations, operations areas, rail facilities, and supporting facilities.

1 hr

Camouflage and Deception

Definitions, objectives of deception, methods of camouflage, advances since WW II, and Soviet and Chinese capabilities and intentions.

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8th, 9th and 10th Days TARGET FAMILIARIZATION

20 hrs	Practical application of information presented during program, i.e., astronaut practice in target recognition using photographic material.	All
4 hrs	Questions, Review, and Critique	All

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