

3. 撮影契約書

CONTRACT FOR THE AERIAL PHOTOGRAPHY  
OF THE STUDY ON TOPOGRAPHIC  
MAPPING IN THE KINGDOM OF MOROCCO

This contract made and entered upon on this 3rd day of the month of November of the year, 1988 between International Engineering Consultants Association ( Japan ), a corporate judicial person established in accordance with the laws of Japan with its principal office at No. 3-23, Kojimachi, 5-chome, Chiyoda-ku, Tokyo, Japan (hereinafter referred to as "IECA") as the representative of the consortium for the Morocco Mapping Project and Cabinet Ober, a company established in accordance with the laws of the Kingdom of Morocco with its principal office at 60, Rue Jules Gros Oasis-Casablanca, Kingdom of Morocco (hereinafter referred to as "CONTRACTOR"). IECA and CONTRACTOR are sometimes referred to herein together as the PARTIES.

WITNESSETH

WHEREAS, Japan International Cooperation Agency (hereinafter referred to as "JICA") and Directeur De La Conservation Fonciere Et Des Travaux Topographiques (hereinafter referred to as "DCFTT") have agreed upon to perform the aerial photography of an area of 8,500 sq. km. along the coast of the Atlantic Ocean, the Kingdom of Morocco (hereinafter

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referred to as " WORK " as a part of the Study on Topographic Mapping Project in accordance with the SCOPE of WORK signed on 15th, March, 1988 and;

WHEREAS, JICA entrusted the above-mentioned WORK to the consortium of IECA and Aero Asahi Corporation (hereinafter referred to as " CONSORTIUM ") with IECA acting as a representative for the Topographic Mapping in the kingdom of Morocco Project, and;

WHEREAS, CONSORTIUM desires to sublet WORK to be done by CONTRACTOR, and whereas, CONTRACTOR is willing to do so.

Now, THEREFORE, the PARTIES hereby agree as follows:

ARTICLE 1 : WORK

CONTRACTOR shall perform aerial photography comprised of 1:40,000 scale photography covering the area of 8,500 sq. km. (hereinafter referred to as " Mission I ") and strip photography covering the leveling routes at a scale of 1:10,000 (hereinafter referred to as " Mission II ") according to flight plan as shown on Appendix 1 of the specifications, Exhibit A, and CONSORTIUM shall pay CONTRACTOR for said WORK.

ARTICLE 2 : SPECIFICATIONS

WORK shall be performed in accordance with the attached specifications,

Exhibit A, which is considered to be an integral part of this Contract.

ARTICLE 3 : PREPARATION FOR THE WORK

CONTRACTOR shall provide all the necessary skilled and well-trained personnel for taking the aerial photographs and developing the aerial film as well as the required materials. CONSORTIUM will be responsible for supplying CONTRACTOR with Flight Plan prepared on the available map at a scale of 1:500,000 showing the area to be photographed. The Flight Plan will show the runs to be flown.

ARTICLE 4 : COMMENCEMENT OF THE WORK

CONTRACTOR shall mobilize the aircraft, crew and necessary equipment to Casablanca Anfa Airport, unless hindered by force majeure, after the receipt of instruction of commencement from CONSORTIUM and shall commence the Work as soon as possible.

ARTICLE 5 : WORK PERIOD

CONTRACTOR shall complete all aerial photography and laboratory work within the period specified hereunder after the mobilization to abovementioned Airport subject to weather conditions.

Mission I : Within (95) days from date of the notice of commencement up to 6th of February, 1989.

Mission II : Within (15) days from date of the notice of commencement up to 18th of November, 1988.

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ARTICLE 6 : REPRESENTATIVE OF CONSORTIUM OF SITE

CONSORTIUM will send its personnel to Morocco as its representative during the flying period in order to coordinate with the crew and promote the flight of CONTRACTOR. Representative will have the following claims and obligations :

1. Inspection and check of the progress and final results of aerial photography.
2. Instruction of reflight and re-print when the results are out of Specifications.

ARTICLE 7: INSPECTION OF RESULTS

When each roll of film has been photographed and photoprocessing has been conducted thereafter, CONTRACTOR shall give a notice of completion to CONSORTIUM's representative in Morocco. CONTRACTOR shall submit each one (1) set of contact prints for checking and a preliminary flight index to

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CONSORTIUM's representative immediately upon completion of each photo processing for the inspection and approval. If and when such results are not accepted by CONSORTIUM's representative because of nonconformance with the attached specifications, CONTRACTOR should perform reflights and submit the results to CONSORTIUM for its approval.

ARTICLE 8 : REPORTING

CONTRACTOR shall submit a written flight report in English to CONSORTIUM ( or CONSORTIUM's Representative ), together with the meteorology record and quality control sheet. These reporting form shall be provided by CONSORTIUM.

ARTICLE 9 : LIABILITY

CONSORTIUM shall be exempted from or kept harmless against any claim, damage, loss and/or accident incurred on or arisen on the third party in connection with any activity of CONTRACTOR during the period of WORK.

ARTICLE 10 : INSURANCE

CONTRACTOR shall be held liable for injuries to third parties resulting from CONTRACTOR's negligence. CONTRACTOR shall be responsible for holding negotiations with injured parties and implementing all necessary steps which will insure the settlement of the matter.

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ARTICLE 11 : CONTRACT PRICE

Total contract price including mob/demob. charges shall be  
US\$ ( Say US Dollars , one hundred seventy five  
thousand eight hundred thirty four.)

Breakdown as follows : US\$ for " Mission I " and  
US\$ for " Mission II ":

(A) Mission I

Aerial Photography ..... US\$  
Photo Processing ..... US\$

(B) Mission II

Aerial Photography ..... US\$  
Photo Processing ..... US\$

ARTICLE 12 : ACTUAL FLYING COSTS

Landing, parking, fuel and any other fees concerning actual flying  
shall be borne by CONTRACTOR.

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ARTICLE 13 : PAYMENT CONDITIONS

Payment shall be made as follows :

Mission I

- (a) US\$ as advance payment.
- (b) US\$ within 30 days after the completion of " Mission I " and photo processing and the acceptance of results by CONSORTIUM's representative.

Mission II

- (a) US\$ as advance payment.
- (b) US\$ within 30 days after the completion of " Mission II " and photoprocessing and the acceptance of results by CONSORTIUM's representative.

In case that all the aerial photography and processing could not be completed due to the reason not responsible to CONTRACTOR, payment shall be made on a pro rata basis.

$\frac{TA}{TF} \times (\text{Total contract price})$

Note : TA is the total line kilometres of acceptable flight runs and TF is the total extended line kilometres of flight runs shown in the attached Flight Plan, Appendix 3 and 4 of Exhibit A.

Payments shall be made by telegraphic transfers to CONTRACTOR's account mentioned below against the invoice countersigned by CONSORTIUM's representative :

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BANK NAME : SOCIETE GENERALE MAROCAINE DE BANQUES  
ADDRESS : 2, AVENUE DES F.A.R., CASABLANCA  
TEL NUMBER : 22.33.51  
TLX NUMBER : 24016  
NAME OF ACCOUNT: OBER VICTOR  
ACCOUNT NUMBER: 125950

ARTICLE 14 : FORCE MAJEURE

- (a) Any failure by CONTRACTOR to carry out any of its obligations under this contract shall not be deemed a breach of contract, if such failure is caused by force majeure or reasons beyond such party's reasonable control. For purposes of this contract force majeure shall include wars, insurrections, civil disturbances, blockages, embargos, strikes and other labour conflicts, riots, earthquakes, epidemics, storms, floods, explosions, fires, lightening, orders of directions of any government or sub-division thereof, acts of God or the public enemy, and any other causes ( whether or not the kind hereinabove described ) over which CONTRACTOR has no reasonable control and which is of such a nature as to make timely compliance with its obligations under this contract impossible.
- (b) In such cases, CONTRACTOR shall notify CONSORTIUM in writing stating the cause.

Neither party shall be obligated to resolve or terminate and disagreement with third parties, including labor disputes, except under conditions acceptable for both parties. If such labor controversies can be resolved by competent authorities or by an arbitrator, they shall be accepted by both parties in such a way that the continuation of the execution of this contract shall proceed.

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(c) If CONTRACTOR is by force majeure rendered unable, wholly or in part, to perform its obligations and to meet its responsibilities for CONTRACTOR under this contract, then CONTRACTOR shall suspend to the extent of its inability to perform them, and for as long as such inability continues.

ARTICLE 15 : PROPERTY

All materials, survey results and information which will be obtained by and furnished to CONTRACTOR under this contract shall remain the property of CONSORTIUM ( and will be transferred to the Moroccan Government by the Japanese Government ) and CONTRACTOR shall not disclose them to others in whole or in part for any other purposes.

ARTICLE 16 : REPLACEMENT OF CREW AND MATERIALS

CONTRACTOR shall provide replacements for the aircraft, the aerial

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camera or any other piece of equipment when such equipment is rendered unusable for any reason. CONTRACTOR shall also provide replacements for the flight crew and necessary laboratory technician, if for any reason, they are not able to carry out their assigned work.

Costs for replacements shall be borne by CONTRACTOR.

ARTICLE 17 : ASSIGNMENT AND/OR SUBCONTRACTOR

Without written consent of CONSORTIUM, CONTRACTOR shall not assign part or all of this contract to the third party or subcontract any portion of the WORK.

ARTICLE 18 : TERMINATION OF CONTRACT

CONSORTIUM has the right to terminate this contract without any payment in the following cases :

- (a) Except as provided in Article 14, force majeure, if CONTRACTOR does not mobilize the aircraft after the instruction by CONSORTIUM or fail to commence or suspend the WORK for a certain period without justified reasons.
- (b) If WORK is not fully performed by CONTRACTOR in accordance with this contract and specifications without justified reason.

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CONSORITIUM may terminate this contract by giving CONTRACTOR a written notice which will be delivered at least five (5) days before date of termination. In this event, payment shall be made on a prorated basis, which is specified in Article 13, Payment Conditions.

ARTICLE 19 : ARBITRATION

All disputes arising in connection with this contract shall be finally decided under the Rules and Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the Rules.

ARTICLE 20 : CHANGES IN WORK PROGRAM

CONSORITIUM has the right to change the contents of WORK at any time, if necessary, subject to agreement with CONTRACTOR.

ARTICLE 21 : EFFECTIVE DATE OF THIS CONTRACT

This contract shall become effective on the date when the contract is duly executed and signed by both PARTIES.

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ARTICLE 22 : FAIRNESS, DOUBT OR ITEMS NOT SPECIFIED

In entering into this contract, the PARTIES recognize that it is impracticable to make provision for every contingency that may arise in the course of WORK. Accordingly, the PARTIES hereby confirm it to be their intention that this contract shall operate between them with fairness. Any doubt in connection with this contract or any item not specified in this contract shall be determined amicably by mutual agreement of the PARTIES.

IN WITNESS THEREOF, the PARTIES have executed this Contract by their duly authorized representatives as of the date first written above.

*Tositomo Kanakubo*

TOSITOMO KANAKUBO  
COUNCILOR  
INTERNATIONAL ENGINEERING  
CONSULTANTS ASSOCIATION (JAPAN)  
(IECA)

*OBER. Victor*

VICTOR OBER  
CHAIRMAN  
CABINET OBER  
(KINGDOM OF MOROCCO)

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EXHIBIT A

SPECIFICATION  
FOR  
THE AERIAL PHOTOGRAPHY  
OF  
THE STUDY ON TOPOGRAPHIC MAPPING IN  
THE KINGDOM OF MOROCCO

1. GENERAL

Aerial photography shall be carried out by the CONTRACTOR for the Topographic Mapping Project in the Coast of Atlantic Ocean area, of which the survey and mapping have been entrusted to the International Engineering Consultants Association ( IECA ) and Aero Asahi Corporation ( AAC ) ( hereinafter referred to as " CONSORTIUM " ).

2. AREA

Aerial photography shall be carried out in the following areas.

2.1 Photographs to be used for aerial triangulation and stereo plotting shall cover the area of approximately 8,500 sq km at a scale of 1:40,000 ( hereinafter referred to as " Mission I " ( see Appendix 1 ) ).

2.2 As for the leveling routes, strip photographs for pricking of existing bench marks shall be taken at a scale of 1:10,000 ( hereinafter referred to as " Mission II " ) along the routes, and total distance of the routes is approximately 438 km ( see Appendix 2 ).

3. WORK PERIOD

3.1 Commencement of the work

(a) All arrangements for the personnel of high-skill, materials, facilities and/or equipment necessary for this work should be prepared quickly by the CONTRACTOR so that the flying can be commenced from the Casablanca Anfa Airport within five(5)-days after receipt of the notice of commencement from CONSORTIUM.

(b) CONSORTIUM shall make every effort to give the CONTRACTOR preliminary information to start mobilization as far in advance of the notice of commencement as possible. CONTRACTOR should be in condition to perform with the first priority the flights requested by CONSORTIUM.

3.2 Work period .

CONTRACTOR should complete all aerial photography and laboratory work within the period specified hereunder.

Mission I : Within ( 95 ) calendar days from date of the commencement.

Mission II : Within ( 15 ) calendar days from date of the commencement.

4. REPRESENTATIVE OF CONSORTIUM ON SITE

CONSORTIUM shall dispatch its personnel in the Kingdom of Morocco as its representative in order to supervise and check the photo-flights of the CONTRACTOR.

Detail indication and minor modification of the specification as set forth below, within the extent of not affecting contract amount shall be made on site by CONSORTIUM representative, in mutual agreement by both parties.

5. EQUIPMENT TO BE UTILIZED

5.1 Aircraft

The survey aircraft to be used in the performance of the contract work should be equipped with all the essential navigational and photographic instruments. It must have the requisite photographic cruising speed and operating range, a high rate of climb, good stability while in flight, good field of view for visual navigation and a service ceiling at full load equal to or higher than the highest altitude required for the project. The design of the aircraft shall be such that there should be an unobstructed field of view for the total image area of the camera, shielded from exhaust gasses, oil and turbulence of airflow caused by propellers.

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## 5.2 Aerial camera

Aerial camera to be used for the photography shall be a modern aerial survey camera such as ZEISS RMK A15/23 or WILD RC-8, RC-10 type, which has a calibration certificate.

Lens to be used for photography of 1:40,000 and 1:10,000 should be wide angle with 150mm focal length.

The calibration certificate should include :

- (a) The maker's serial number of the camera and the serial number of the lens.
- (b) The coordinates of the principal point with reference to the fiducial marks.
- (c) The radial distortions of the image, with reference to the principal point as origin.
- (d) The calibrated focal length at which these distortions apply.
- (e) The certificate as by whom and when the camera was calibrated.

5.3 All equipment and copies of the last calibration certificate of the above equipment should be agreed on and submitted to CONSORTIUM before commencement of the work.



#### 5.4 Laboratory

The contractor's laboratory should be spacious enough to meet the expected operational requirements and should be adequately equipped and staffed with sufficient qualified personnel to facilitate high quality production in such a volume as the contract may require.

#### 6. PERSONNEL TO BE EMPLOYED

CONTRACTOR should employ or hire skilled and welltrained personnel for this kind of work, and submit to CONSORTIUM their record of experience previously for the acceptance of CONSORTIUM.

CONSORTIUM shall have the right to reject and direct the replacement of CONTRACTOR's personnel who is judged "unqualified" by CONSORTIUM for the execution of the work.

#### 7. SPECIFICATION

##### 7.1 Flight plan

The flight plan is attached as Appendix 1 and 2, and has been prepared on a topographic map of the area at scale 1:500,000.

The flight plan shows the lines to be flown and the required coverage beyond the boundaries of the area to be mapped.

The directions of the flight lines are shown as such on the flight plan.

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## 7.2 Photo Scale and Altitude

The aerial photography shall be taken at average scale of 1:40,000 for the whole area and 1:10,000 for leveling route. Flying altitudes for each lines are shown on the list of flight line marked as Appendix 3 and 4.

## 7.3 Aerial Films

(a) The aerial film to be used shall be with a fine grain of freshly coated emulsion and the base shall have minimum differential distortion.

(b) Negatives should be clear and sharp in details and of uniform density. They should be free from clouds, smoke, haze, light streaks, shadows, tears, scratches and other blemishes.

(c) To ensure dimensional stability, the film should not be stretched or otherwise deformed in any way. Special care should be exercised to ensure proper development and through fixing and washing of all films; and to avoid curling of film tightly on drums during processing and drying. About one meter at each end of a roll should remain unexposed.

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#### 7.4 Flying Requirements

(a) 1:40,000 photography ( Mission I )

(1) The photography should be undertaken so as to provide complete stereoscopic coverage over the specified area.

(2) The area should be covered with straight strips of photographs having overlap of about  $60 \pm 5$  percent.

The sidelap ( overlap of parallel strips of photography ) should average 30 percent. In no case should the sidelap be less than 10 percent on the area to be mapped. In the event of considerable variations in ground level, a reasonable increase in the specified overlaps shall be accepted.

(3) Crab should not exceed  $10^\circ$  or be such that stereoscopic gaps in the photography result from it.

(4) Tip and tilt should not exceed  $4^\circ$ .

(5) The centers of the first one and the last one photograph should fall outside the required area boundary.

(6) Exposure of photography should be adjusted to obtain photographs in clearly even in the shadows caused by topographic relief.

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(7) Where breaks in a flight strip are necessary, the minimum overlap between segments of the strip should be at least three (3) exposures.

Any segment of a flight strip resulting from necessary breaks should consist of no fewer than eight (8) exposures.

(8) Reasonable effort should be made to obtain cloud free photographic and five percent of clouds appearing in each photograph may be considered as tolerable.

In no case, however, should clouds fall in control points and principal points.

(b) 1:10,000 photography ( Mission II )

Photographs should be taken along the leveling route with 20 percent overlap.

(c) All flight strips should be centered as close as possible over flight lines plotted.

(d) Attention of the CONTRACTOR is directed to all existing regulations concerning restrictions and procedures on photography of classified installations and/or reproducing, publishing or selling photographs of such installations.

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The CONTRACTOR should meet the requirement of DIRECTION DE L'AIR; Ministry of Transportation before taking photographs of classified areas or installations.

(e) A flight report has to be delivered for each film containing the following information ( see Appendix 5 ).

- (1) The name of the contract
- (2) The name of the contractor
- (3) The number of the film
- (4) The time of the first and last exposure fore each run.
- (5) The date exposed
- (6) The serial number of the camera, magazine and the lens.
- (7) The calibrated focal length given in the calibration report.
- (8) Lens aperture, filter, shutter speed.
- (9) Type of film
- (10) Aircraft number
- (11) Height above sea level
- (12) Weather conditions, etc.

(f) Daily weather condition during the work period has to be recorded on a meteorology & flight record sheet ( see Appendix 6 ).

7.5 Indexing and numbering of films should be made in mutual agreement by both parties. Each film and each aerial negative should be marked clearly of the block type lettering approximately

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one sixth ( 1/6" ) inch high and positioned so that each group should not be less than 1/8" or more than 1/4" from the related image edge of the negatives.

- (a) Film markings - Each negative roll shall be numbered consecutively starting with No. 001.

Each end of each roll should be clearly marked with ;

- (1) Contract number of project designation
- (2) The name of the area
- (3) Roll number
- (4) Dates on which exposed, together with relevant negative numbers
- (5) Serial number of camera optical unit and the principal distance as shown in the calibration certificate
- (6) Corrected height ( not indicated height ) above mean sea level at which exposed, together with relevant negative numbers

- (b) Negative numbering

Negative numbering shall be instructed later.

#### 7.6 Contact Prints

- (a) Contact prints from the negatives of the aerial photography should be made on double weight semimatte standard commercial grade photographic paper and should be trimmed

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with a margin of approximately one-fourth (1/4) inch outside of the photographic image including the space necessary to show the registering instrument clearly.

- (b) Special care shall be exercised to ensure the proper development and the thoroughly fixing of contact prints. All prints should be clean and free from stains, blemishes, uneven spots, light fog, and finger marks, and shall be thoroughly washed to completely eliminate the hypo or any other chemicals which would impair their permanency.

#### 7.7 Two Time Enlargement Photos

Two time enlargement photos for pricking of leveling shall be prepared using the original negatives of a scale of 1:40,000.

Number of photos are approximately one hundred twenty-two ( 122 ) pieces and representative of CONSORTIUM shall make necessary instructions for preparation of enlargements.

#### 7.8 Four Time Enlargement Photos

Four time enlargement photos for each signals or surroundings shall be prepared using the original negatives of a scale of 1:40,000.

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Number of photos are approximately seventy ( 70 ) pieces and representative of CONSORTIUM shall make necessary instructions for preparation of enlargements.

#### 7.9 Photo Index

A photo coverage index of the project should be prepared to check for overlaps and placement of flight strips against the approved flight plan. The coverage index should be a line index which shall be prepared on the master reproducible 1:200,000 flight plan sheet. The master sheet shall be supplied to CONTRACTOR by the representative of CONSORTIUM.

### 8. PROCESSING AND INSPECTION

8.1 The CONTRACTOR shall process aerial films and make contact prints immediately after the every photographic flight is completed in order to make preliminary inspection of the result and instruct re-flight if it is needed.

8.2 Quality Control Sheet to be used for record of the result ( Appendix 7 ) shall be inspected by the representative of CONSORTIUM.

8.3 The CONTRACTOR should follow any reasonable instructions or technical advices given by the representative of CONSORTIUM.

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(e) One set of four time enlargement photos.

(f) One set of line index in reproducible materials.

(g) All reports required by the specifications.

9.2 1:10,000 ( Mission II )

(a) All original aerial negatives exposed during the aerial photography under this contract. The films are to be on metal spool in containers properly labelled. The labels shall be durable materials and contain the following information :

Contract Number or Project Designation

Name of Contractor

Date Exposed

Roll Number

Numbers of First and Last Negatives

(b) One contact print from every negative of all accepted photography.

(c) One set of line index in reproducible materials.

(d) All reports required by the specification.

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9. FINAL MATERIALS TO BE DELIVERED

The following photographic materials and reports should be delivered or supplied by the Contractor :

9.1 1:40,000 ( Mission I )

- (a) All original aerial negatives exposed during the aerial photography under this contract. The films are to be on metal spools in containers properly labelled. The labels should be durable materials and contain the following information :

Contract Number or Project Designation

Name of Contractor

Date Exposed

Roll Number

Numbers of First and Last Negatives

- (b) One contact print from every negative of the photography for evaluation.

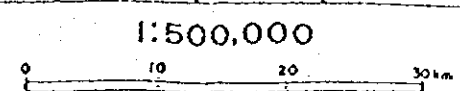
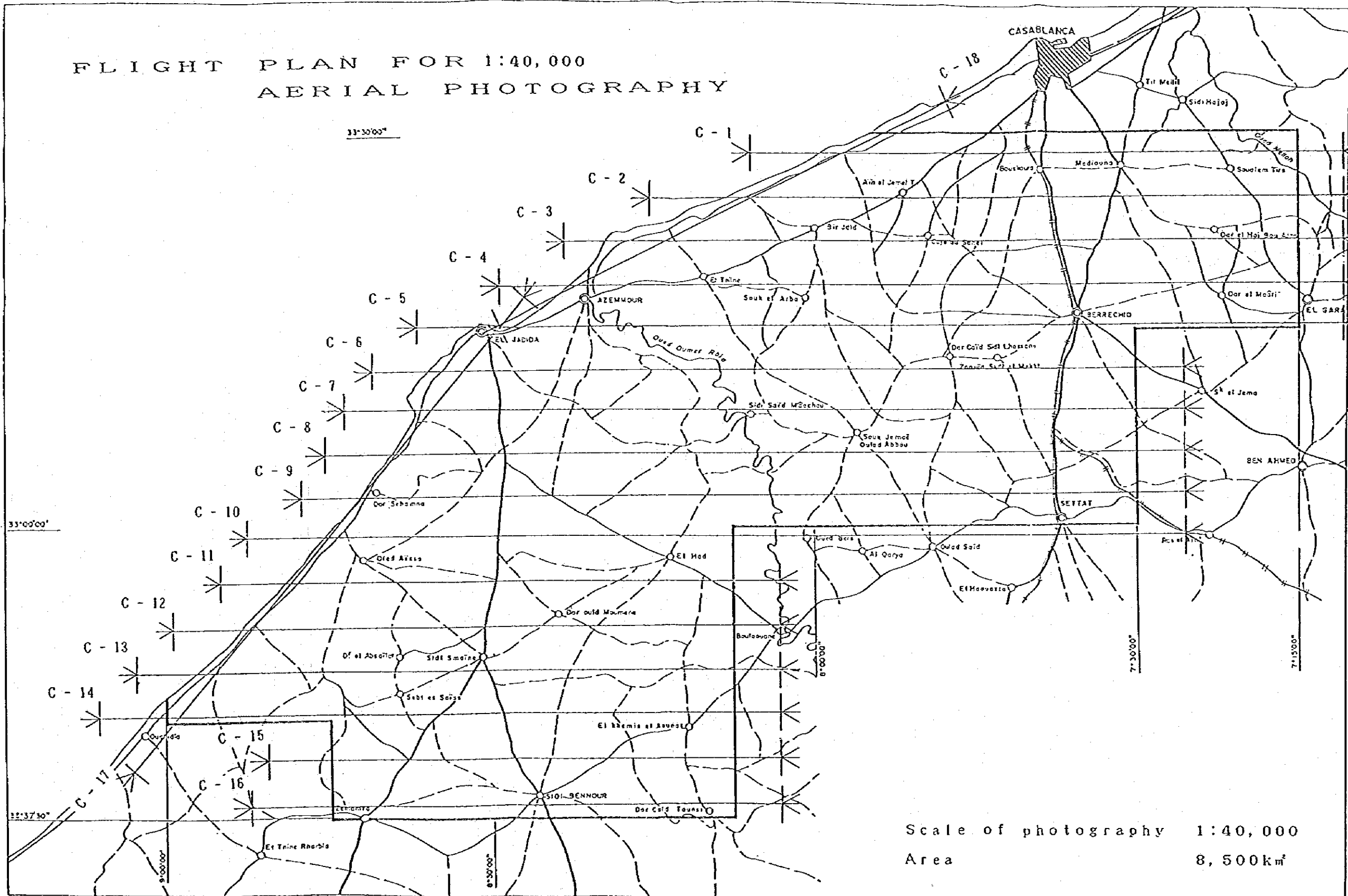
- (c) One contact print from every negative of all accepted photography.

- (d) One set of two time enlargement photos.

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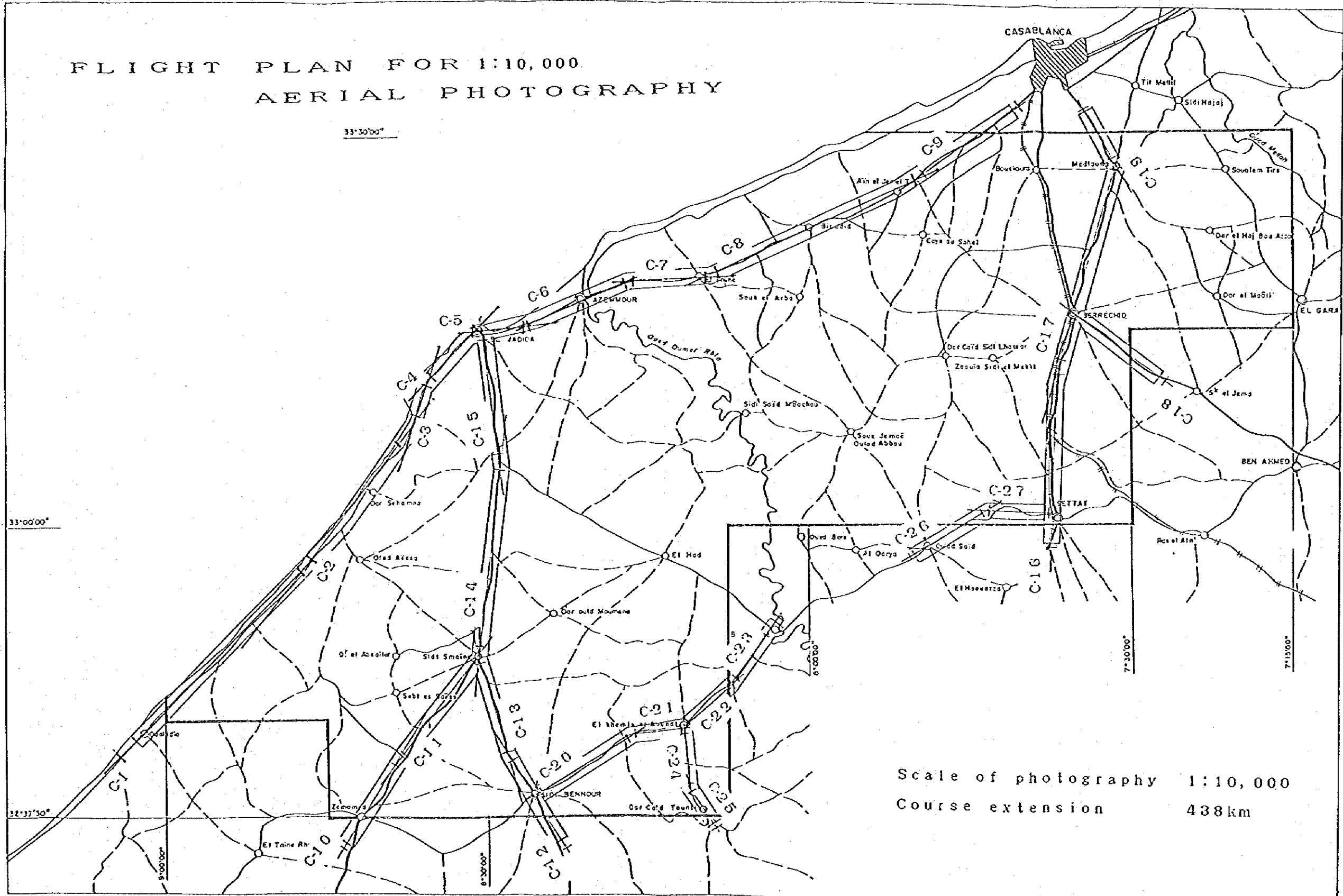


# FLIGHT PLAN FOR 1:40,000 AERIAL PHOTOGRAPHY



(65) ~ (66) J.K. *[Signature]*

# FLIGHT PLAN FOR 1:10,000 AERIAL PHOTOGRAPHY



Scale of photography 1:10,000  
 Course extension 438km

1:500,000



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FLIGHT PLAN 1/40,000

F = 15.0 cm

Line No.	Line Distance (km)	No. of Exposure	Flight Height (m)	Deterence Plane Height (m)
C 1	85.0	24	↑ 6,000 ↓	↑ 0 ↓
C 2	99.6	28		
C 3	112.0	32		
C 4	121.3	34		
C 5	133.4	38		
C 6	117.0	33		
C 7	120.8	34		
C 8	123.8	35		
C 9	127.6	36		
C10	135.0	38		
C11	79.6	23		
C12	86.8	25		
C13	92.0	26		
C14	97.6	28		
C15	73.6	21		
C16	76.4	22		
C17	88.0	25		
C18	72.0	21		
TOTAL	1841.5	523		

J.K. *[Signature]*

## FLIGHT PLAN 1/10,000

F=15.0 cm O. L. 20%

Line No.	Line Distance (km)	No. of Exposure	Flight Height (m)
C 1	39.0	22	↑ 1,500 ↓
C 2	19.0	11	
C 3	9.5	6	
C 4	11.6	7	
C 5	10.7	6	
C 6	9.5	6	
C 7	13.4	8	
C 8	29.0	16	
C 9	21.0	12	
C10	16.3	9	
C11	17.1	10	
C12	12.8	7	
C13	17.4	10	
C14	21.7	12	
C15	22.5	13	
C16	22.0	12	
C17	34.0	19	
C18	23.5	13	
C19	10.0	6	
C20	17.0	11	
C21	8.0	6	
C22	9.0	6	
C23	8.0	6	
C24	13.0	8	
C25	7.0	5	
C26	10.0	7	
C27	6.0	5	
Total	438.0	259	Sheets

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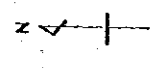


# Flight Report

No. \_\_\_\_\_

Project Designation	Project No.	Photo-grapher	Pilot	Mechanic	
Date of Exposure	Air Base		Type	Take off	:
	Aircraft Reg. Mark		No.	Landing	:
Flight Altitude	ft	Field Elevation (Air Base)	Focal Length	Flight Time	hr
	m	Mean Ground Elev.	No.		
Photo-Scale	1	Indicated Flight Altitude	Type	I A S	(Indicated Air Speed)
		True Flight Altitude	Emission No.	T A S	(True Air Speed)
Meteorology	Weather	Turbulence	Ground	I/O	Altimeter
			Temp.	Ldg.	Setting
Line No.	Time	Wind	°C	°C	mb
	Start	Direction	ft	ft	mb
	Finish	Velocity			
		W/M			
	Filter	Exp. Counter	No. of	Remarks	
	Aperture	Correct. From -- To	Exposure		
	Shutter Speed				
Roll No.	Line No. --	Magazine No.	Total Number of Exposure		
	Line No. --	Magazine No.			

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#### 4. 撮 影 作 業 記 録

日 順	月 日	作業内容	飛行状況	天候	作業実施状況等
1	11/2				
2	11/3	準備作業		晴	OBER社と撮影契約締結
3	11/4	"		晴	飛行許可申請
4~13	11/5~11/14	"		晴/曇	飛行許可待機 撮影準備作業
14	11/15	"		晴	飛行許可取得
15	11/16	撮影作業	10:25~15:30 4h55m	晴	撮影:(1/10,000) C-1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15, 20, 21, 22, 23, 24, 25
16	11/17	写真処理		雨	フィルム現像:R-1 (11/16撮影分)
17	11/18	撮影作業	13:25~13:50 0h25m	晴	現地雲の為中止, 引返し
18~25	11/19~11/26	撮影検査		曇/雨	検査:(1/10,000) C-1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15, 20, 21, 22, 23, 24, 25
26	11/27	撮影作業	10:40~13:30 2h50m	晴	撮影:(1/10,000) C-7, 8, 9, 17, 18, 19 フィルム現像:R-2
27	11/28	"	09:50~12:55 3h05m	晴	撮影:(1/10,000) C-16, 26, 27 再撮影:C-18, 19 フィルム現像:R-3
28~36	11/29~11/7	撮影検査		晴/曇	検査:(1/10,000) C-7, 8, 9, 16, 17, 18, 19, 26, 27 (1/10,000完了)
37~50	12/8~12/21	待 機		晴/曇	ANFA空港閉鎖 指定区域内飛行禁止
51	12/22	撮影作業	13:30~15:00 1h30m	晴	現地視程不良の為中止, 引返し
52	12/23	"	10:10~10:40 0h40m	晴	"
53~51	12/24~12/25	待 機		晴/曇	現地視程不良の為待機
55	12/26	撮影作業	09:40~13:35 3h55m	晴	撮影:(1/40,000) C-17, 18
56	12/27	"	10:20~14:10 3h50m	晴	撮影:(1/40,000) C-5, 6
57	12/28	待 機		晴	指定空域内飛行禁止
58	12/29	撮影作業	10:10~14:00 3h50m	晴	撮影:(1/40,000) C-3, 4 再撮影:C-6
59	12/30	"	09:50~14:00 4h15m	晴	撮影:(1/40,000) C-1, 2, 7
60	12/31	"	11:30~15:00 3h30m	晴	撮影:(1/40,000) C-8, 9
61	1/1	" 写真処理	11:25~15:30 4h05m	晴	撮影:(1/40,000) C-10, 11, 12 フィルム現像:R-1, 2

日 順	月 日	作業内容	飛行状況	天候	作業実施状況等
62	1/2	待機		晴	視程不良の為待機 フィルム現像：R-3
63	1/3	撮影作業	14:45~15:00 0h15m	晴	視程不良の為引返し
64~65	1/4~1/5	待機 撮影検査		晴	視程不良の為待機 検査：C-17, 18
66	1/6	撮影作業 撮影検査	10:30~12:30 2h00m	晴	視程不良の為引返し 検査：C-5, 6
67~72	1/7~1/12	待機 撮影検査		曇/雨	天候不良 検査：C-2, 3, 4, 9, 10, 11
73	1/13	撮影作業	09:30~12:30 3h00m	晴	視程不良引返し
74	1/14	"	10:10~13:45 3h35m	晴	"
75	1/15	待機		晴	視程不良
76	1/16	撮影作業	10:05~11:35 1h30m	晴	
77	1/17	"	09:30~11:30 } 12:30~14:25 } 3h55m	晴	再撮影：(1/40,000) C-1, 7, 8
78	1/18	" 写真処理	10:20~12:30 } 14:30~16:35 } 4h15m	晴	撮影：(1/40,000) C-13, 14 再撮影：C-12 フィルム現像：R-4
79	1/19	撮影作業 写真処理 撮影検査	10:30~12:50 } 13:30~16:10 } 5h00m	晴	撮影：C-15, 16 フィルム現像：R-5 検査：C-1, 7, 8
80	1/20	撮影作業 写真処理	10:50~12:55 2h05m	晴	再撮影：C-16 フィルム現像：R-6
81	1/21	写真処理 撮影検査		晴	フィルム現像：R-7 検査：C-15, 16 (1/40,000完了)





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