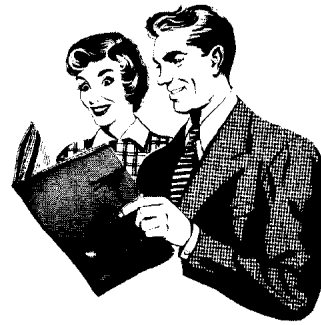


AERO PROFIT SHARING—RETIREMENT PLAN MODIFIED



Earlier this year, it was announced that a thorough review of the Company's Profit Sharing-Retirement Plan was to be made. This study now has been completed and at the August meeting of the Board of Directors certain significant amendments to the Plan were approved. PROP WASH wishes to give you a synopsis of these changes.

1. All dividends from non-participating subsidiaries and non-consolidated affiliates will now be considered as income under the formula in determining the Company contribution.

The purpose of this amendment is to increase the potential amount of profit on which the annual contribution to your fund is determined. Since the inception of the Plan in December of 1950, several subsidiaries and affiliates have joined the Aero family of companies. We refer here to such subsidiaries as Iranian Aero Service Corp., Aero Service (Bahamas) Limited* and Photo/File Surveys Inc.* Affected affiliates** would be SARM of France and African Surveys (pty) Limited. Where the profit of any of these companies is such as to warrant the payment of a cash dividend to the parent company, such dividend or dividends will be added to the total amount of profit on which the annual contribution of the Company is based.

2. In the calculation of the annual Company contribution, no longer will there be deducted from the amount of profit on which the contribution is based an amount equal to ten percent of the consolidated capital and surplus accounts of the Company. Further, the "step" percentage formerly provided in the plan in computing the total company contribution is eliminated. In the future, a flat ten percent computation will be applied on all levels of profit.

The purpose of this change is to insure employee participation in profits, regardless how small profits might be in a given year. It will be recalled that the last two annual company contributions to the Plan were discretionary, i.e. they were not required through formula computation as

* See next page for fuller description of these recently established subsidiaries.

** The differentiation between "subsidiary" and "affiliate" is as follows: Where Aero owns more than fifty percent of a Company, it is designated a subsidiary. Ownership of fifty percent or less labels it an affiliate.

the comparatively modest profit attainments in 1958 and 1959 were not great enough to offset the then operative ten percent capital-surplus provision. The new amendment eliminates this provision, and provides for an annual contribution consistently proportionate to a given year's profit level, however small or large.

3. In calculating the individuals' share of any given annual company contribution, allocations will be determined in accordance with the ratio which the number of units to which each participant is entitled bears to the total number of units to which all participants are entitled. The units to which each participant is entitled shall be determined by crediting each participant with one unit for each year of seniority and one unit for each \$100 of compensation.

This change, compared with the former formula for individual allocations, insures a somewhat greater individual share of the total Company contribution for the newer participants, especially future first, second, and third year participants. The former policy of "weighting" years of service and compensation credits has now been eliminated, as has the procedure of splitting the Company contribution down the middle--half the allocations based on seniority and half on compensation. This revised formula follows that more generally used in similar-type retirement plans in industry today.

As we enter the decade of the sixties with close to five hundred employee-participants (with more to be included each year), the Company feels these amendments provide for a wider base on which the Company contribution is based. It also feels that the individual allocations are equitably determined. PROP WASH encourages any employee to discuss any aspect of the Retirement Plan, as amended, with his supervisor or the Personnel Department. Copies of the Plan are available in the latter office.

SUR/FAX—A NEW TOOL FOR THE HIGHWAY ENGINEER

SUR/FAX is the trademark of Aero's newly developed low cost system of precision recording, inspection and analysis of highway surfaces by photography.

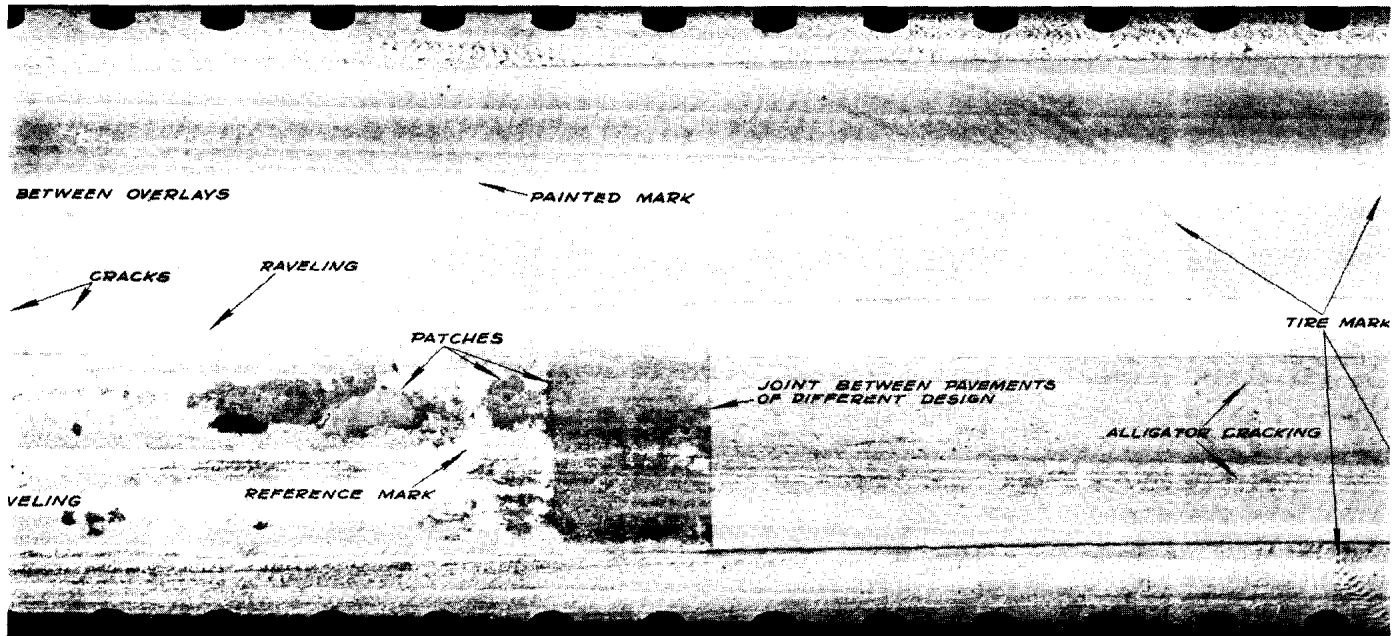
An idea conceived by Homer Jensen, ASED Director, the system was developed by staff members of the Systems Engineering Division and will be an addition to the photogrammetric and engineering services offered by the Photogrammetric Engineering Division.

SUR/FAX during the course of its development has been referred to as the highway camera or "The Monster". The road unit consists of a specially modified extreme wide angle Aero strip camera mounted at the top of a fourteen foot stabilized boom on the front of a modified truck. It records a strip 36 feet wide on 35 mm film at a scale of 1:400. An array of airport type landing lights and high powered florescent bulb provide low angle illumination. To insure constant

illumination and to least interfere with normal traffic, the surveys will be conducted in darkness, normally between midnight and predawn.

The unit normally travels at 20 to 30 miles per hour gathering more information in greater detail and far more quickly than any method previously available for highway surface studies.

Dick Brown played a significant part in debugging the system. With Bob Borst of the Photogrammetry Division, he conducted field tests near Ottawa, Illinois. The Bureau of Public Roads requested test surveys in this area on 20 miles of experimental highways, which were built with various types of foundations and surface materials to allow long range studies of the various methods of highway construction. The same crew also ran an experimental survey for the State of New York. Ernest McLendon recently completed a survey over the Delaware Memorial Bridge for the engineering firm which designed the structure and who are now



This is a sample of SUR/FAX showing a macadam road 21 feet wide.

working on a companion span. The principle uses of SUR/FAX will be to record highway surface conditions to determine priority areas for road maintenance, determine reasons for surface failure, and to provide permanent objective records for long range studies.

A study is to be made shortly in association with the Pennsylvania Railroad to determine the value of SUR/FAX to railway engineering and road-bed maintenance programs. The equipment will be mounted on a railroad car, and pushed along the track by a locomotive.

Additional experimental studies are expected to reveal other applications of the SUR/FAX principle.

PHOTO/FILE is another Aero activity which will involve a specially adopted 16 mm camera to be used in an essentially horizontal position to record other types of highway features. With the latter units, highway engineers will be able to cruise their highways at speeds up to 900 miles per hour while sitting in the comfort of their own office.

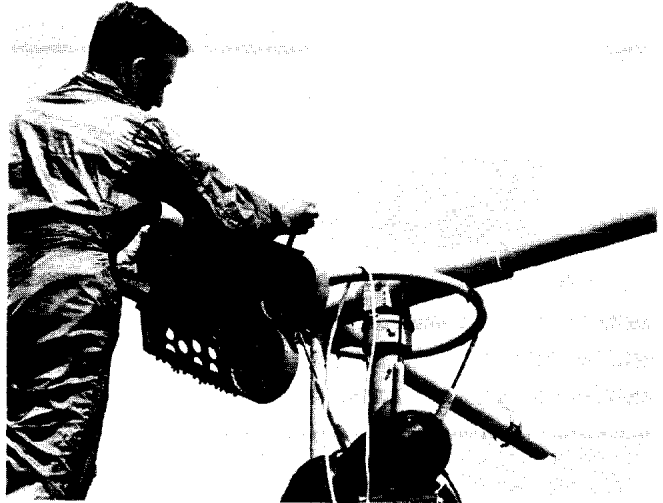
The PHOTO/FILE activities will be carried out by a subsidiary company, PHOTO/FILE Surveys, Inc.

NEW APPOINTMENTS IN OTTAWA

Robert M. Reckeweg former Executive Vice-President and General Manager was named President of Canadian Aero Service Corporation, Ltd., the end of June.

At the same time, Grant Ray was appointed Secretary - Treasurer of the Canadian Company.

Thomas O'Malley, has become Chairman of the Board of Canadian Aero. Other members of the Board of Directors of our Canadian affiliate include Robert Reckeweg and Canadian Aero's Vice-Presidents, Thomas E. Rowlands and John W. Strath; John Cross of Armstrong and Cross, Chartered Accountants, H.W.Lea, a consulting engineer of Ottawa; George Strawbridge, Burtram McClain, Virgil Kauffman, Thomas M. O'Malley, and James Wells, and Ottawa attorney long active in aviation affairs.



Dick Brown makes some adjustments to the Aeropath camera used in the SUR/FAX system.

The officers of the new corporation are President, George Strawbridge; Vice-Presidents, A. O. Quinn, William Latady, Robert Langford (Research and Development) and Robert Dailey (Sales); Secretary, Eugene Cook and Treasurer, Charles B. Ermentrout, Jr. Directors of PHOTO/FILE include George Strawbridge, Homer Jensen, A.O.Quinn, Eugene Cook, Robert Langford, Robert Dailey and Fletcher Platt.



William DesLaurier, Aero's European Sales Manager at a high level sales conference in Madrid, Spain, flanked by Dan Arden of Sohio Oil Company (l) and Carl Huff of Tidewater Oil Company (r). Bill, and also Charles Keck, Aero's Middle East Sales Manager, have been recently elected Vice-Presidents of Aero Service (Bahamas) Ltd. This wholly-owned subsidiary is a major operational unit for the conducting of business primarily in the Eastern Hemisphere.

PRODUCT DIVISION TO MODEL TITUSVILLE OIL FIELDS

The Relief Model Division recently received a contract to produce a historical model of the Titusville, Pennsylvania area where Edwin L. Drake and William A. Smith brought to the world its first successful oil well.

The map model will be triangularly shaped, about fifty square feet in area. It will be realistically painted and textured and include 160 individual oil wells, 20 lighted storage tanks, a fire well and 12 shot wells, and the world's first oil pipe line.

A taped comentary and selective lighting system will provide a description of the events and highlight the points under discussion. The model will show the area as it was in the late 1860's.

Oil was known for sometime prior to Drake's well. The oil bearing springs near Titusville had been exploited by the local Indians long before the pale faces appeared on the scene. Around 1847, "rock oil" as it was then called was being bottled and sold as medicine. Its value as a lubricant and as a fuel was known but the supply was not great. At Titusville it was obtained by skimming troughs which collected from three to six gallons a day from the surface of the spring water.

Drake was sent to Titusville by the infant Pennsylvania Rock Oil Company, to find a way to produce oil in commercial quantities. The popular view at the time pictured oil as a leakage from coal fields. This was interpreted as indicating that oil would be found on or just below the surface of the ground, and that it would not be found at any great depth. Finding that the skimming process could not be expected to produce oil in quantity, he dug collecting pits. These filled

with water before oil was reached. In spite of the opposition, he proceeded to sink wells to tap the oil below the surface. The early wells also experienced water seepage and cave ins.

Drake reasoned that lining the well with iron pipe would prevent this trouble and using a tree trunk as a battering ran they sank pipe casings (another first) until rock was reached, lowering the drilling cable and bit down the casing.

On August 27, 1859 the drill reached a depth of 69½ feet, ending in a crevice. Meanwhile Drake was notified that the Company had run out of funds and he was directed to abandon the project. The next day, however, when Smith looked down the well casing he saw something shinny at the bottom and brought up a dipper of oil!



The well produced 500 gallons of crude oil per day, which was sold to the kerosene refineries for a dollar a gallon. The news spread quickly and soon a forest of shallow wells were tapping this underground pool of energy. Methods of exploration were primitive. Since the Titusville field was located in a valley, most exploration for new fields was confined to other valley areas. Geological and geophysical methods of oil exploration were developed as more information became available. At first, the oil was barreled and taken by horse drawn wagon to the railroad sidings about five miles away. In 1865, Samuel Van Syckel

constructed a two inch pipe line which moved a gallon per second to the shipping point at about one fourth the cost of wagon shipments.

Drake, Smith and Van Syckel were pioneers who carried on in spite of opposition and ridicule, as were the others who followed them to discover and market new petroleum products, and those who developed improved methods of production and petroleum exploration.

Seeking new petroleum fields is a risky business. As many as 13,000 exploratory wells have been drilled in a single year and the odds

are more than eight to one against finding oil. The single well may cost from a few hundred thousand to more than two million dollars before success or failure is known.

More than two-thirds of the energy used in the world comes to us from oil or gas. Aero's Geophysical Division is intimately connected with the petroleum industry in their quest for additional petroleum reserves. Our service points out the favorable areas for the more costly exploration techniques needed to select the most advantageous location for an exploratory well.

NEWS FROM GEOPHYSICS

Once again we are pleased to have Dick Lambert with us as a Supervisor after working overseas two years on several projects. Dick worked in such places as Libya, Korea, Bangkok, Japan, Australia and Laos. Moving from job to job he had a chance to visit in Paris, Rome, London and other areas too numberable to mention.

Vacation notes

Life in a dormitory at the Eastern Baptist College in St. Davids was Ann DuBell's vacation, there working with young children. From there we travel to Gettysburg with Les Thompson seeing such historic spots as The Monument to the Pennsylvanian's, the famous cemetery from the Civil War and the beautiful Eisenhower farm. On the lighter side he witnessed the opening of a new Fantasy Land meant primarily for

children, but Les admits it is quite interesting for all. Much further south to New Orleans is our next visit with Laraine Jakubowski who enjoyed staying at the French Quarter and eating at Antoine's famous French restaurant. She traveled to Florida from there but hints that New Orleans is where she wished to remain. Changing our route completely, let's go to Canada with Kate Leibrick who took her first ride on a ship along the St. Lawrence. Planning a winter trip to Florida is Dottie Wagner who hopes to spend Christmas there. Instead of vacationing this year, you will find Rita Myers hidden behind the wheel of her new white Morgan sports car.

It's back to school soon for Mike Turner who worked for magnetometer during the summer earning money to return to Purdue where he'll be a senior this year.

AERO BOWLING NEWS

The grueling, down-to-the-last-pin pace of Aero league bowling will be alleviated somewhat this year by the presence of an all-girl team known as the "Martini's". This team, formed of a hard core of such seasoned keglerettes as Captain Cecilia Wenger, Millie Sheers, Mary Lou Kuhn, Ann Flanagan, Mary Kiesling and Laraine Jakubowski will try to provide unusual and excit-

ing competition for the veteran men bowlers. The girls have already put in several practice sessions in order to be in top form for the initial matches which are slated for September 7.

Geophysics will field a six man team captained by League President, Carl Gehring which consists of Joe Bowman, Ron Eastham, Bob Lung, John Iredell and Charlie Curtis. This team is as yet untried in competition, but optimism is high.

FIELD OPERATIONS THROUGHOUT THE WORLD

Alaska

Survey crews returned to Alaska in April for the balance of the field work on the highway jobs. Wes Eldridge, Bob Martin, and Vail Fleischman have been running preliminary lines in the Mitkof Island area. They are living in houseboats again, the Totem, which was used last year, and the Atlas a new houseboat. The use of two has increased the efficiency of the operation as well as adding to the field crews comfort. Bob Martin shot a grizzly bear this year and we are hopefully awaiting a picture.

Woody Malot, Mark Grooms, Cal Naber and Ray Stalder are doing final location work on the first 15 miles of the Berring River area and during mid September will run the preliminary line for the balance of the area. Bob Martin recently joined this crew from the Mitkof area and Ronald Jones came up from Philadelphia. The weather in Alaska has been worse this year than in 1959 with an unusually large amount of precipitation but the work has been continued despite this discomfort. The basic map control work was completed in late Spring and the location work is progressing well.

Ken Slack and Wayne Campbell completed the flying for this job and have remained to do a variety of other jobs with their Cessna.

Australia

Field operations are underway on a 35,000 sq. mile airborne magnetometer survey in Northeastern Australia for Phillips Petroleum. Don Hill and Dick Butler of the home office force are ably handling the electronic and data end of the operation respectively. Murray Lawrence, Aero's Australian area representative is administrative manager for this project. Pilot is Leslie Taylor who is flying the Apache which was used in Laos and Thailand. Leslie's years of magnetometer flying in this area should be an advantage on this operation.

Bolivia

Quentin Allen and Milt Villiard are basing their P-38 at Cochabamba for the high altitude photography being done for Andean Geoservices. Bob Coombe joined them the end of July to handle aircraft maintenance.

California

Bob Pate, Electronics Department Manager headed up a good sized crew on an airborne magnetometer survey on the West Coast, which included contact and Shoran controlled work. This was the first assignment for our new Aero Commander. Field crew for this operation was Bruce Fluck on the airborne shoran, Frank West doing the ground station reconnaissance, and Chuck Hawes, Clarence Vorwerk and Leonard Subick on the ground shoran stations. Bill Noone handled the magnetic data compilation. Bob Pate flew as magnetometer operator and Joe Mullen, Flight Operations Manager, was in the left seat. This operation was completed in early Aug. Joe Mullen, Bruce Fluck and Bill Noone are now working on mineral surveys in several areas in California and Nevada for the Utah Construction and Mining Company.

Chile

Al Holtzclaw, Dick Crosby, and Steve Terry are using an AT-11 for an 8,000 square mile mineral survey. The crews will really see some scenery on this project. As a look at a relief map will show, the mountains in Chile are second only to the Himalayas. There are a number of peaks higher than 20,000 feet.

East Coast

Jack Kenley, Dick Watson and Leonard Subick were the crew for a petroleum mag survey along the Southeastern coast of the U.S. This was a Doppler controlled survey performed in an AT-11.

Greece
Al Holtzclaw and Harry Sanders completed the petroleum magnetics survey in record time during

May. The facilities of the Greek Air Force were made available for the processing of the 35 mm flight path film and this arrangement worked out extremely well. At the completion of the job Harry joined the Libyan crew and Al returned to the U.S. to prepare for another assignment.

Illinois

Bob Ball, Wayne Estes and Ron Groshardt are obtaining field control in Peoria where the project involves large scale topographic maps for use in all phases of municipal planning.

Laos and Thailand

Dick Lambert, Pop King and Don Hill completed 5,000 miles of airborne mineral work in Laos and Thailand this spring. Don Hill was featured in an article appearing in the local English language newspaper, Vienvian World.

Libya

Bob Lee, Charlie Stinchfield, Charles Swirsky and Harry Sanders were the crew on a petroleum mag survey which turned in fine results. Dean Gibbons of Gravity Meter Exploration was the client representative on this job. Dean also worked with Aero in Greece. Donald Davidson of Canadian Aero was on the job, helping to get the high quality results particularly necessary, due to the low magnetic gradient in the survey area.

Dean Gibbons told the crews that the record they produced on the survey is some of the finest

300 gamma sensitivity he has ever seen. Dean should know as GMX has interpreted data produced by all of the survey companies. This job was in progress during June and July.

Missouri

Bud Hammond and Red Adelman are currently working on a low level mineral mag survey in Missouri using a new Travelair. Paul McReynolds paid a visit to this project recently to help with the shakedown of the new magnetometer installation.

Spanish Sahara

David Hunter and Max Hasler of the Survey Department are working in the Spanish Sahara in conjunction with Geoprosco on the Phillips Petroleum project. Dave and Max are using a tellurometer to set control for mosaics and for the establishment of control points near the concession boundaries.

Turkey

Paul Dauphin and George Reynolds continue to serve Canadian Aero as mechanics on the AT-11 and DC-3 assigned to the Turkey project.

Wyoming

Jack Kenley, and Dick Brown took the Doppler equipped AT-11 out to Sheridan for a petroleum mag survey in that area. They welcomed Bud Thomae back to work there, after his long convalescence following his fall in Surinam.



Joe Mullen checking the map before the maiden flight of the Aero Commander.



Charles Stinchfield and Virgil Kauffman checking the flight indexes during the latter's African visit.

Gill Stoll and Fred Wachtel are also in Wyoming using a Cessna 195 for photo work from a base at Cheyene.

Work has started on a route survey, controlled mosaic, and property survey for a 300 mile communication cable system near the Colorado-Wyoming-Nebraska border. Gill Stoll and Fred Wachtel flew this job and the route survey is being done by Art Dupuy, Burt Sharp and John Harlan. Al Oppermann is digging out the identity of property owners from whom the client will seek easements for the cable installation.

Future Work

Present plans call for a return to Spanish Sahara for mineral magnetometer work later this year to be performed for the Spanish Government.

RELIEF MAP DISCOUNT AVAILABLE TO AERO EMPLOYEES

The Company has for sometime offered Aero employees a very attractive discount on the purchase of first quality "stock" relief maps for their own personal use. To keep Prop Wash readers posted on the items available under this plan, we are listing the relief maps currently available. Information concerning prices, shipping and billing arrangements may be obtained by calling Extension 251. All first quality maps are sold boxed, ready for shipment.

DeLuxe Size Maps

These maps vary in size from 64 x 40 to 43 x 37 inches. The map subjects currently available are the 50 State United States, The World, New Jersey, Europe, Canada, North America, South America, California, Wisconsin, Pennsylvania, and New York.

Decorator Sized Maps

The World and the United States (50 states) are available in simulated wood frames measuring 41 x 26 inches.

Gift Sized Maps

The World and the United States (50 states) are available for parcel post mailing. These maps measure 28½ x 18½ inches.

An employee sale of reject maps will be held during the fall season. Further details on this will be posted shortly on Aero bulletin boards.

Also on the books is magnetometer work in Spanish Guinea for Gulf Eastern which includes both mag and photo assignments of 3,500 kilometers of concession areas.

The Aero Commander is a welcome addition to Aero's fleet of aircraft. This sleek looking aircraft has a service ceiling of 25,000 feet, and a range of 1,600 miles. Faster and more economical than the AT-11, it can be used for Shoran controlled or Doppler controlled magnetic surveys. Powered by two supercharged engines of 340 horsepower each, the Commander cruises at more than 200 miles per hour. Its fine flight characteristics make it an easier plane to fly and it should certainly prove popular with our flight crew.

AERO LIBRARY MOVES TO ADMINISTRATION BUILDING

Aero's Technical Library moved recently and is now open for business in the loft area of the Administration Building. According to Librarian Rinehart Potts, the materials available include more than 500 reference books and over 500 different technical periodicals and through inter-library loans, publications we do not have can be made available for temporary use.

Aero personnel may make use of the library or call upon the librarian for assistance in locating the answers to particular questions. They are prepared to track down answers to questions such as: What is the normal rainfall in Tuscon, Arizona; What recent articles are available on Russian Geophysical Surveys, and; What water resources programs are engaged in by State and Federal governments.

All departments are urged to loan or permanently transfer to the library any publications which are not required on a continuing basis, so that they may be made available to other organizational units.

An article about Aero's library will appear in a forthcoming issue of the Bulletin of the Special Libraries Association, one of several professional groups with whom our librarian is affiliated.

ALEXANDRIA STAFF MOVES TO PHILADELPHIA

During July Aero Philadelphians welcomed back the PhotoInterpretation Department, which for a number of years had been located in Washington, D.C. and Alexandria, Virginia.

Glenn Landis is heading up the group, now known as the Intelligence Research and Development Department, a Division of ASED. Other new and returning faces are Dick Stitt, his assistant, Al Davis, John Montanari, Ron Haynes, Al Pressman, Gerry Richards, and Miss Mary Frances Myers, their secretary. Frank Beatty is also a member of this department, but is currently working with Canadian Aero. Bob Blesch the former department manager, is now associated with the Photogrammetric Engineering Division as their Engineering Geologist.

The department is currently engaged in an evaluation of detection and interpretation capabilities of imagery produced by various types of airborne infrared detectors and high resolution radar equipment, a study being performed for the Army Intelligence Center. Work is continuing on another project concerned with the selection, interpretation and description of emergency artic landing sites being performed for the Air Force.

Has the Army taken over Luray Street? No, not really, but there is a good reason for asking the question.

Aero's Intelligence Research and Development Department commenced work this summer on a 9 month study involving the interpretation and evaluation of some 13,000 units of recorded imagery obtained by Army aircraft utilizing side-looking radar and infrared sensors.

Most of the intelligence information gathered by the Air Force Reconnaissance Branch was acquired during an intensive two-month airborne survey along the Eastern Coast of the United States. This study is the second part of the two phased program which was undertaken by the Army the latter part of last year.

Six members from the U.S. Army Intelligence School staff at Fort Holabird will work full time at Philadelphia with our ASED staff. This group is headed by Captain James H. Sargent, a senior



To the Aero Shops goes the credit for executing this item of office furniture which provides semi-privacy for four people. A number of these units are being used by the Intelligence Research Department. Captain James H. Sargeant and Ronald Haynes are pictured at work on the Sensor Evaluation project.

instructor at the Ft. Holabird PhotoInterpretation School.

According to Captain Sargent, some of the devices employed during the aerial survey were "test" sensors. He said that improved versions may be issued to the Army units, however, the interpretation techniques of the imagery are necessary before full scale use can be made of the sensors, and the new airborne platforms now under development. Our Systems Engineering group will be responsible for the development of these new techniques, and the interpretation of the recorded images. The results of the program will help future planning for the tactical use of airborne infrared and side-looking radar.



TIROS

- COMMANDS ATTENTION AS A WEATHER MAPPER

A new mapping system departed from the eastern coast of Florida on April 1, 1960, which will certainly have an impact upon all Prop Wash readers. Tiros I, the first of a series of American weather satellites climbed to an altitude of about 450 miles and on command began taking photographs of the earth every 30 seconds. During the three month useful life of the satellite, more than 20,000 photographs were transmitted back to earth.

The name Tiros is derived from Television and Infrared Observation Satellite. The satellite was designed by RCA for the National Aeronautics and Space Administration. It contains two television cameras, infrared sensors, and other meteorological devices as well as a stability sensing and correcting systems, tape recording system, transmitter and receiver and a solar cell power supply.

When the satellite passed over Fort Monmouth, New Jersey and Kaena Point, Hawaii, the taped television photos were played back and transmitted to the ground data acquisition units where they were recorded photographically along with frame number, time, and other identifying information. At the same time instructions were transmitted to the satellite regarding when to start the next series of thirty-two photographs.

In order to prevent Tiros from tumbling through space, the satellite was spin stabilized. Spinning around like a top, it pointed to the same point out in space, and hence sometimes pointed toward the earth, sometimes pointed out into space, yielding earth photographs of varying obliquity. Future versions of Tiros will be placed in an orbit crossing the earth's poles which will achieve complete coverage of the earth. Some can be placed in an orbit and controlled so that they will always point to the same point on the earth's surface, giving continuous coverage of any particular area.

Tiros was largely experimental but is expected to yield a good bit of information. There does not

seem to be any question that the cloud information obtained will bring about revolutionary changes in long range and world-wide weather prediction.

Due to the fact that we have never before had any significant number of systematic photographs from this great an altitude, methods of gathering, classifying and interpreting such data must be developed. Research has already been conducted using the photographs taken from ballistic missiles and balloons, but the limited number amount of such photographs available have made the conclusions tentative.

Various weather research and prediction agencies are giving this problem high priority. As part of their work, they plan to systematically study 5,000 of the Tiros I photographs initially.

Insofar as gathering data is concerned, Tiros was eminently successful, taking 64 photographs on each trip around the world. Future satellites will yield photography with better resolution and future versions of Tiros with a longer lasting source of power will be capable of literally swamping us with photographs of the earth.

One of the current problems is to collect and arrange the photographs systematically so that they will be useful. Since the value of weather data decreases rapidly with the passage of time, the time involved in making the photographs useful is of extreme importance from a weather prediction standpoint. The task of transferring data from the photographs to maps or charts is made difficult by the fact that the original photographs vary from verticle to extreme oblique, and consequently vary in scale and the amount of displacement distortion.

Aero's Systems Engineering Division has submitted a proposal to the government agencies containing a method of tackling this problem economically and speedily. Project Engineer Everett Rhodes and Blaise Santianni have been responsible for this task.

EASTMAN KODAK ANNOUNCES NEW FILM SPEEDS



This photograph shows the Red Sea and parts of Saudi Arabia, Ethiopia, and the Sudan, viewed from over the Gulf of Aden.



The same photograph after rectification. This image was produced from prints and an image from the original negative would be sharper.

Aero shutter bugs will be interested in knowing of the newly revised standards for determining the speeds and exposure indexes of continuous tone black and white films which have been approved by the American Standards Association. This provides new speed numbers for the use with exposure meters to be used in the place of the former exposure indexes.

These new ASA speeds eliminate most of the safety factor that was incorporated in the old exposure index. This will lead to less dense negatives, which will tend to reduce the grain and increase the sharpness of the negative. It should be noted that the speed of the film is not being changed, the only change is in the exposure recommended. People possessing cameras that do not have adjustable shutter speeds on them will still only have to "push the button". If you wish to improve your picture taking and have this type of camera, adding a yellow filter to your camera will reduce the exposure and accomplish the same results.

In addition to the regular speed number, which is approximately twice the old exposure index, there is another number, between 1^0 and 10^0 . This additional number, called the "Speed Value", is part of a new system for computing exposure and is given in anticipation of its use with cameras and meters marked with these values.

For panchromatic films, only one set of speed numbers is given, these to be used for daylight and tungsten illumination. With blue sensitive and orthochromatic films, lower speed numbers are recommended for tungsten illumination than for daylight. These changes do not affect color film.

NEW SPEEDS FOR KODAK ROLL FILMS AND FILM PACKS

| | <u>NEW ASA</u> | <u>OLD ASA</u> |
|----------------|-----------------------|----------------|
| Panatomic X | 40/3.5 ⁰ | 25-20 |
| Verichrome Pan | 125/5.0 ⁰ | 80-64 |
| Plus - X Pan | 160/5.5 ⁰ | 80-64 |
| Tri - X Pan | 400/7.0 ⁰ | 200-160 |
| Royal - X Pan | 1250/8.5 ⁰ | 650-450 |

PRODUCT DIVISION SHOWS INCREASE

Aero's Production Division is moving ahead rapidly to fulfill the progress planned for 1960.

In the instrumentation field the automated coordinatograph is in production and considerable interest in this tool has been evidenced by both industry and the government agencies.

In the Relief Model Department, we have had our busiest year to date and everything points to increasing activity between now and Christmas.

Since the first of the year, Relief Model has published a DeLuxe map of North America, intermediate sized maps of the 50 State U.S.A. and World, and an 8th edition of the DeLuxe U.S. map.

Yet to be done are 2,000 copies of a Saudi Arabia map now awaiting client approval but scheduled for completion this year, 1,500 copies of a model of Iran, 5,000 copies of a parcel post map of Canada for Canadian Aero, the 3rd edition of The World, and a 2nd edition of the California State map.

Under intensive development is a True Raised Relief Globe scheduled for completion in time to hit the Christmas buying season. Charles Snyder has been working full time on the solution of the technical problems for the past six months, assisted by George Oakley. Arnold Kreisman's group is completing the highly distorted compilation required and Harry Stevens is completing the color work.

Distribution of maps in the school field has made substantial gains as a result of the reorganization and realignment made a year ago. School sales for the year to date are running more than 40% ahead of 1959.

A full line of maps has been developed for the retail field, consisting of the World and the United States in three sizes and price levels. Well over one million envelope stuffers will be

used by department stores this fall to promote the sale of these maps.

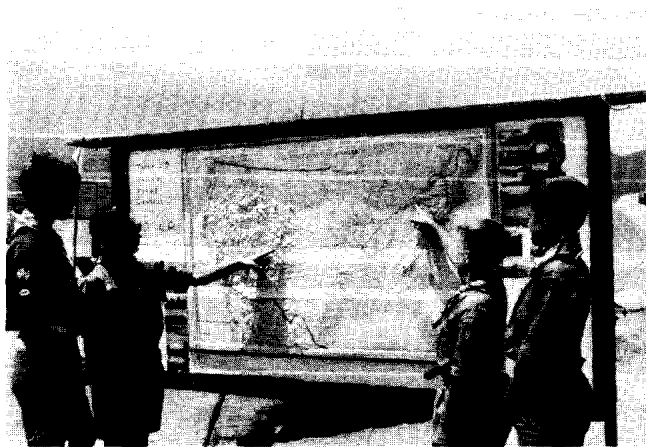
Aero maps are now catalogued by Sears and Roebucks, Montgomery Ward, and Spiegels and by a number of department stores in their Christmas catalogues.

As a result of these promotional activities, a record volume of sales is anticipated during the fall buying period.

A custom model of the Titusville, Pennsylvania oil field area will be completed in the early Spring.

Joe List is working on three aircraft models for an engineering client, one being a highly detailed DC-3 with a 1.9 inch wing span. The department has also fabricated plastic magnetometer cones for the new Aero Commander and the Travelair.

Division Head Charlie Hodell and Production Manager Bob Bruner are looking forward to record progress this year and with the aggressive efforts everyone is making the goal will be realized.



Members of Troop 69, Valley Forge Council, Boy Scouts of America used an Aero Relief Map of the U. S. to record their journey to the Jamboree in Colorado Springs this Summer.



Mr. and Mrs. Walter L. Amos, Jr.



Mr. and Mrs. John Schmunk

WEDDING BELLS

Lillian May Beck of Photogrammetric Drafting and Walter L. Amos, Jr., were married in Coatesville, Pennsylvania on June 10.

Lillian joined Aero in the Tax Mapping Division. The bridegroom will be completing his studies at Eastern Baptist College next year.

Virginia Kauffman, formerly of the Geophysical Data Department, and John Schmunk, of the Photogrammetry Division, were married in Yardley on July 12.

We certainly wish the best to these two fine Aero couples.



PREPARE TO CAST YOUR BALLOT !

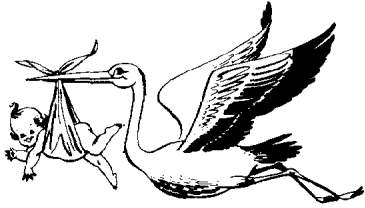
This is the time for each of us to give serious thought to the forthcoming national election and the candidates for whom we will cast the ballot. The ballot is one of the chief means by which we as individuals can influence the destiny of our country. By bringing about the election of leaders to whose principles and ideals we subscribe, we are best assured of having the kind of government and governmental action we desire.

During the past few months and during the months immediately ahead, political candidates will be advocating their views and stating their aims; the political philosophy and strategy of the major parties will be repeated again and again.

Each of us should evaluate this information with care and upon coming to a conclusion, be determined to exercise our right - and duty - to vote.

There is no civic responsibility which is more important. Vote intelligently and by all means

VOTE



Prop Wash

PUBLISHED BY AERO SERVICE CORPORATION,
236 E. COURTLAND ST., PHILADELPHIA 20, PA., OLDEST
FLYING CORPORATION IN THE WORLD, FOR ITS EMPLOYEES
... AT THE HOME OFFICE, IN AFFILIATE COMPANIES, AND
ON ASSIGNMENTS ALL OVER THE WORLD. CONTRIBUTIONS
OF PHOTOS, CARTOONS, ARTICLES AND NEWS ITEMS WILL
BE WELCOMED BY THE EDITOR.

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Mosaic Radial Control
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Relief Model
Relief Model
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Personnel
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Staff Photographer
Intelligence Research

Frank McNamara and his wife Dorothy welcomed their fifth child, Lynn, on May 25, 1960.

We are proud to announce the arrival of twins in the Broderick household. Eileen and Arleen born May 23 are two of five children.

Mr. & Mrs. Manuel Schultz greeted their second child, Adrienne on May 5.

Russell Weidenmiller of Mag Data and his wife Helen welcomed their fourth child, Chris, born on June 7.

Mr. & Mrs. Samuel T. White were pleased to announce the arrival of their son, Paul, on June 27.

Phyllis and Robert MacTough were proud parents when they announced the birth of their second child Robert, born June 23.

Mary Lee and Thomas Shanahan were speechless; their first; A BOY, Thomas Jr., was born on July 10.

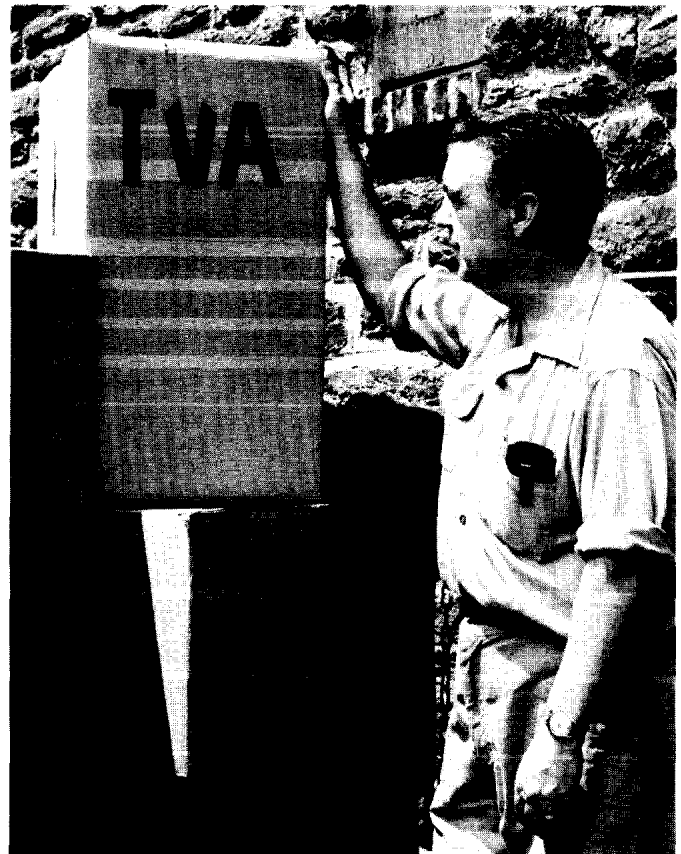
Albert Shybloski, better known as Al, was very happy to announce that his wife Irene gave birth to a little boy, their first born, Steve on July 16.

Congratulations are extended to Mr. and Mrs. Albert E. Pressman on their recent arrival, a little girl, Leslie born on July 29.

Carl Gehring of Mag Data and his wife Myrna welcomed a newcomer to their household, a little boy, Donald born on August 18.

Nadia Croul better known as Nancy, a former draftsman in topographic drafting, sent us word special delivery (MR. STORK) that she and her husband now had an addition in the family, a darling little boy, Brian Douglas, born on June 29.

Robert Dombrowski from the Field Survey Department and his wife Ofelia Ruiz just managed to meet the Prop Wash deadline with this bit of news: ARRIVAL OF FIRST CHILD; GISEL, BORN ON August 28, 1960.



Veteran photographer Bob Plum looks wistful as the 500 rolls of film covering the TVA job is shipped to inactive storage. This project was completed in 1934 using a unique five lens camera.

WYOMING

by
John M. Pate

I

There's a poem some guy's written
'bout Wyoming's azure skies,
'Bout the rattlesnakes and woodticks,
porcupines and battle flies,
'Bout the purple snow-capped mountains
and the zephers in the air,
'Bout the wolves and ~~coons~~ ~~skunks~~ ~~and~~ ~~bears~~,
coyotes, skunks ~~and~~ ~~bears~~.

II

He goes on to tell of puntlers
with their chaps and cartridge belts
And their silver mounted saddles,
Hyer boots and Stetson felts;
How they'll work from dawn 'till evening
if you keep their tummies full;
How they rope and tie a critter;
and they love to throw the ball.

III

Oh, he ~~also~~ gives some descriptions
of this ~~hazy~~ ~~weather~~ ~~State~~,
And he ~~also~~ ~~describes~~ ~~how~~ ~~they~~ ~~live~~ ~~here~~,
(so he says ~~at~~ ~~the~~ ~~end~~ ~~of~~ ~~his~~ ~~poem~~)
Once again to ride the ranges
after cattle that are fat
And to see the reckless cowboy
come alopin' cross the flat.

IV

But of one thing I am certain,
(it's apparent in his rhyme)
This guy must have hit Wyoming
in the good old summertime,
When the range grass starts awavin'
and the young calves romp about,
And that funny springtime feeling
makes a fellow want to shout.

V

Now the ~~things~~ he's writ are true enough
as near as I recall
But there's sides to old Wyoming
he ain't never seen at all.
He ain't never stood a night guard
When the rain's spaltin' down,
Nor slept out with one sugan*
When there's snow upon the ground.

VI

'Cause when winter shuts down on us
and the blizzards start to rage
And the cowboy starts afigurin'
where they've spent their ~~whole~~ ~~years~~,
When the springs are all froze solid
and the valley filled with snow,
Deep enough to strike the breech clout
of a long-gear'd 'Rapaho,

VII

When the range cows stand and shiver
too plumb weak to even graze,
And the hump that's in their middle
beats a canle forty ways,
When the whole darned landscapes covered
with a blanket soft and white,
That's the time to hit Wyoming
if you want to hit her right.

VIII

That's one side of this country
that our poet's never seen,
It would freeze the golden romance
out of any poet's dream.
I'm no pessimist or cynic poet friend,
I'll have you know,
But who the 'ell can dream of romance
when it's 28 below!

IX

I've a tip to give you, partner,
if you'll mind it not the least,
And that's to spend the whole darn winter
in ~~some~~ ~~small~~ ~~hotel~~ ~~back~~ ~~east~~,
And keep right on writing verses,
with your clean descriptive pen
But don't come back to old Wyoming
'til the summers here again!

John M. Pate, grandfather of Aero's Bob Pate settled in Wyoming back in the 1880's. This poem, written around the turn of the century, should produce a nostalgic yearning in all of our transplanted Westerners.

*blanket