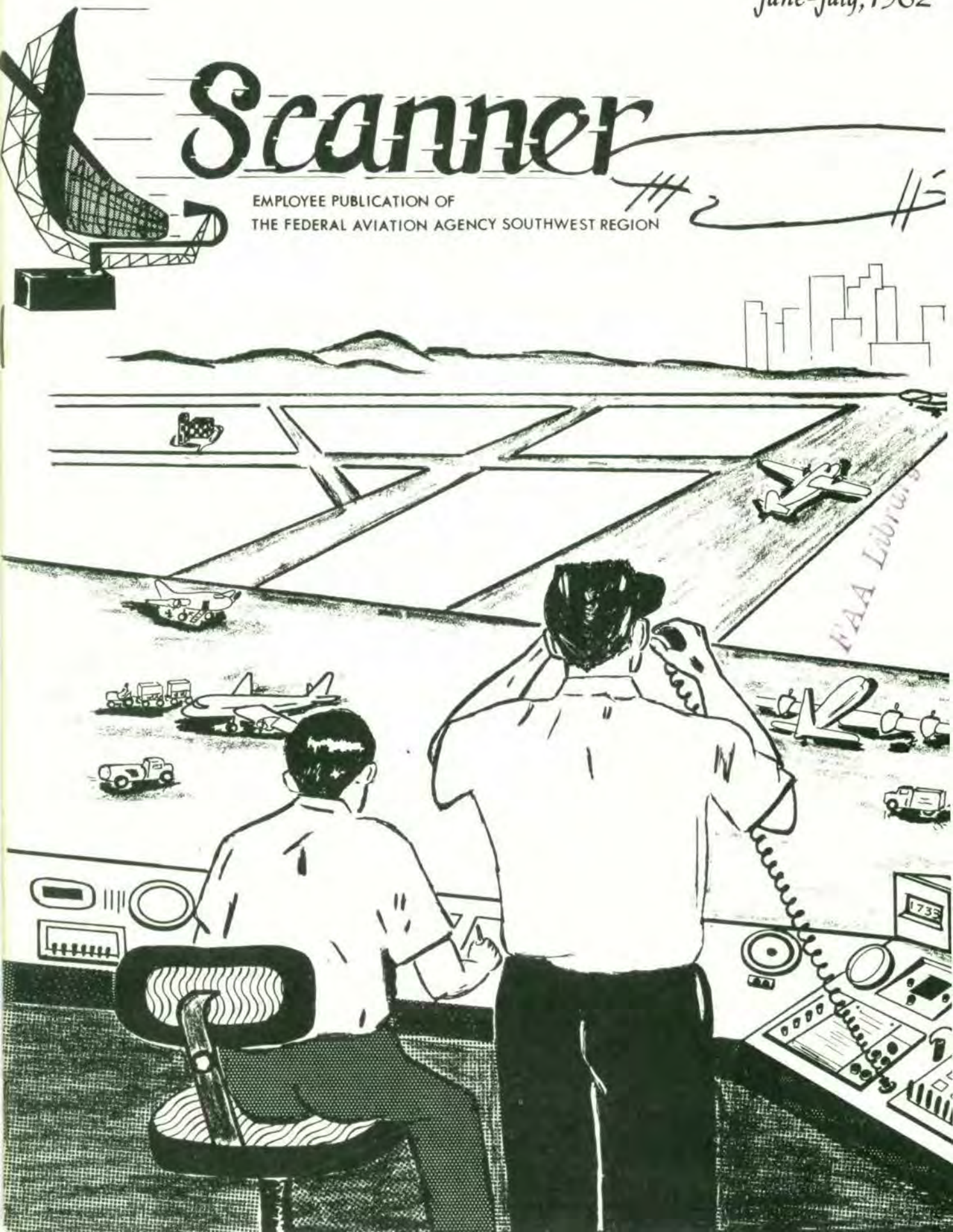


June-July, 1962

Scanner

EMPLOYEE PUBLICATION OF
THE FEDERAL AVIATION AGENCY SOUTHWEST REGION



EDITORIAL STAFF

Tony ChathamEditor
Martha Nell Cline.....Editorial Assistant

DIVISION REPORTERS

AccountingJuanita Winstead
Administrative Services.....Betty Grimada
AirportsKenneth Rock
Air Traffic.....Beth Gorham
Aviation FacilitiesGaynel Miser,
Mary L. Pendleton,
Margaret Tinkle
Aviation Medicine.....Edna Bethany
BudgetSusanne Coble
Flight Standards.....Harold F. Illich,
Carolynne Bechler
LegalJane Smith

TECHNICAL PRODUCTION

ArtPat Hutto,
Betty Keys
PhotographySam Chapman,
Bobby Trantham

FRONT COVER

Our artist, Betty Keys, made this illustration to accompany the article, "What is a Tower?", beginning on Page 4. A stylized design, the drawing does not represent any particular tower, although it was modeled, in a very general way, after the scene at Love Field.

We hope you won't mind being short-changed just a bit on this issue of SCANNER. As you may have noticed, you got your March SCANNER in April, your April issue in May, your May issue in June, etc. In an attempt to get back on schedule, we are combining the June and July issues. We aren't making any promises, but if all goes well, we hope to put out each month's issue at the beginning of the month instead of at the end from now on.

Something else is new about the SCANNER. We are now having our printing done commercially. Our own print shop is not equipped to handle this type of publication, although they have done a splendid job of making do with what equipment they have.

We hope all of you got your Economy Suggestions in on time. May 31, as you know, was the last day of the Campaign. Incentive Awards Officer Frank Burch reports a total of 254 suggestions received in the course of the Economy Campaign. Winners' names will not be available until August, and will probably be reported in *Fly-By*, although if a Southwest Regioner wins, you can expect full coverage in SCANNER as well.

Safety Officer Joe Caldwell is emphasizing defensive driving as his current safety theme. We call your attention to his article, "How the Experts Control Driving Conditions," on the back cover. The July safety theme stresses the fact that there should be "no vacation from safety." Since some of you will undoubtedly be taking to the waterways on your vacation, you will want to study carefully the boating safety instructions on pages 14 and 15. Have a good vacation, but be careful too. We can't afford to lose any SCANNER readers.



Whose Job Is Most Important?

Our Agency employs a large number of people to do a wide variety of jobs. We have stenographers and air traffic controllers, janitors and test pilots, file clerks and electronic technicians, inspectors and truck drivers, doctors and lawyers, accountants and engineers—almost five thousand employees working at more than a hundred different kinds of jobs in the Southwest Region.

Which one of these jobs is the most important? Is it the air traffic controller's? His is certainly one of the biggest and most responsible jobs in the Region. Yet where would he be without his radio and radar equipment? What kind of traffic control would we have if controllers had no means of communicating with aircraft except by shouting and waving their arms? Then perhaps the electronic maintenance technician has the most important job. He keeps the electronic equipment in good order, so that the controller can communicate with the pilot, and so that aircraft will have safe, dependable navigation aids. But even though a navigational system is in perfect condition, it won't work unless it is supplied with electrical power; a single generator failure can knock even the best navigational system off the air. Then the mechanic who fixes the generator gets to be a pretty important man.

So it is with any job you care to name. Your job, my job, anyone's job is possible only because half a dozen or more other jobs have been done well. Do you think my job is the most important in the Region? I can't be in every facility, monitoring every radar scope, installing every new navigational aid, investigating every aircraft incident, issuing every airman certificate. These are your jobs, and if you weren't there to do them, there would be no need for my job. Top management people to a great extent are only as good as the employees who work with them and for them. A uniformly poor group can make even the best executive look poor, and a good group can make a poor manager look good. Good leadership helps, but without an intelligent, cooperative, efficient, and diligent work force, it quickly comes to nought.

Can you name a single job that isn't important? Maybe you would think a GS-3 temporary clerk-steno has a pretty insignificant job. If you think so, then ask the man who has one working for him; ask him where he would be without her. Chances are he probably wouldn't even like to consider the possibility. Without her to relieve him of an unusual volume of clerical details, his job, and probably half a dozen other jobs, would be faced with serious handicaps.

What about the janitor's job? Some people might say his job isn't very important. Did you know there are 121,000 square feet of floor space in the Regional Office alone? If you think sweeping all that every day is an insignificant job, you ought to try it sometime. Then there's mopping and waxing and buffing to be done. Where would you be if you had to do all this, even just in your own office, in addition to your other duties?

It's obvious, then, that there's no such thing as an unimportant job. If you do your job well, then six, or twenty, or a hundred people will be able to do their jobs well. If you do your job poorly, then these people may be unable to do their jobs at all. So who has the most important job in the Region? There's only one answer to that question—YOU do.

Archie W. League

What Is A Tower?



Controllers at work in a tower cab. From left to right are flight data controller, ground controller, and local controller.

A tower is a team of experts working together to provide air traffic control in and around an airport. Whenever we think of "tower", we usually tend to think only of the glassed-in cab overlooking the airport. In days past, the men in the cab were indeed the only members of the team. They provided the only traffic control service there was, depending entirely upon what they could see, or what they could hear on their radio receivers. Nowadays, however, planes are too big, too fast, and too numerous to be controlled solely by the use of human senses. In large, busy terminal areas, "eyeball control" has to be supplemented by the more sensitive eyes of radar, and most members of the control team work not in the cab, but in the radar room. Smaller towers which are not radar-equipped may provide instrument control service by means of radio aids, or all instrument operations may be referred to a near-by parent tower or air route traffic control center.

To some of us, the term "air traffic control" conjures up little more than the image of a man in the tower cab holding a microphone and saying "cleared for take-off."

Actually, a tower is only one type of traffic control facility, and in the area of tower work alone there are several sub-specialties. Towers are classified as Level I, II, III, or IV, according to the volume and type of aircraft operations they handle. In a Level III tower such as Dallas' Love Field, there will be three controllers in the cab, each handling a different phase of control service. Downstairs in the radar room, perhaps three times as many men are working in other phases of the control operation. These different jobs include ground control, local control, and a flight data position in the cab, and approach control, departure control, precision approach radar (PAR), and more flight data positions in the radar room.

Up in the cab, the ground controller formulates and issues taxi clearances, and relays departure clearances from the flight data controller (who receives them from the center) to the appropriate pilot. He is responsible for directing all ground traffic, and preventing collisions between ground vehicles and taxiing aircraft. The ground control position is separate from local control only in high activity towers.

The local controller is responsible for the sequencing, spacing, and issuing of clearances and instructions to aircraft operating under visual conditions in the tower's area of responsibility. In a non-approach control tower, this area may reach out to a radius of 40 miles. In approach control towers, this radius extends only eight to twelve miles. Of course the controller can't see 40 miles out, so the responsibility for avoiding obstructions rests with the pilot. In the approach control tower, the aircraft is monitored on radar until it comes within the visual range of the local controller. The local controller also studies Weather Bureau reports and forecasts, and provides this information to pilots. In real or anticipated emergencies, it is his responsibility to assist in the orientation of the aircraft in trouble, and to notify airlines operations offices, airport management officials, and fire and ambulance services.

The controller in the flight data position reports arrival and departure times of IFR traffic to the center, and relays clearances, control instructions, and advisory information from the center through the local controller to the aircraft. He studies weather reports and NOTAMs, selecting information which may affect operations at the tower, or be of interest to aircraft in the area. In com-

bined station/towers, the flight data controller's duties also include receiving flight plans involving the tower from pilots and airlines operations offices, and entering this information on flight progress strips. If an IFR flight is involved, he may relay this information to the center. In areas where the tower and the flight service station are separate functions, however, private pilots file their flight plans directly with the FSS, and air carriers file theirs with the center.

Downstairs in the radar room, two approach controllers and one departure controller sit before their radar scopes, monitoring all inbound and outbound IFR traffic. Another controller operates the precision approach radar (PAR), which indicates the altitude, as well as the distance and direction of aircraft on final approach to the runway. The airport surveillance radar used by the other controllers shows the distance and direction of aircraft within a fifty-mile radius, but not the altitude. Several more controllers work flight data positions in the radar room. They are responsible for communicating with the center at the time it releases arriving aircraft to tower control, or takes over the control of departing aircraft, entering the information received from the center on flight progress strips. They also advise the center of vacated altitudes.



Radar room in an approach control tower. Positions, left to right, are PAR, flight data, approach control, flight data.

Air-Share



Good supervision is an important ingredient in successful control work. Here a coordinator takes a look at targets on an approach controller's radar scope. Coordinators perform a liaison function among controllers working in different positions, and are required to be proficient in the duties of all control positions. A watch supervisor is responsible for the overall operation of the tower during each shift.

As soon as an aircraft is no longer a traffic problem in the terminal area, usually when it is eight or ten miles out, the departure controller effects a "hot line" (direct telephone line) hand-off to the nearest air route traffic control center, which exercises en route traffic control. The tower may handle the en route control function for planes traveling only a short distance. This eliminates the need to obtain clearances from the center for such aircraft.

Air traffic control, in towers and other types of installations, is generally conceded to be a very demanding occupation, both physically and mentally. A bill is presently pending before the Senate which would provide for the early retirement of air traffic controllers. The responsibilities involved in air traffic control are heavy, and probably do contribute towards hastening the aging process in many individuals. For example, a single controller with five large jet transports in his pattern is hold-

ing an investment of \$35 million in his hands, to say nothing of about 550 lives. Obviously, air traffic control is not a suitable occupation for the faint-hearted.

It is recognized, of course, that the controller does not work single-handed. He has navigational aids and other types of electronic equipment to help him help the pilot, and a lot of work goes into the maintenance and improvement of such equipment. The controller's work encompasses only one phase of the large area of air safety. The work of Aviation Facilities and Flight Standards personnel is no less important to FAA's total mission. Even those of us whose work seldom brings us in sight of an airplane are contributing to the accomplishment of the Agency's goals. Nevertheless, there's no denying that air traffic control has a certain glamour and excitement about it. As Jack J. Jobe, Acting Chief of Love Tower puts it, "I've been a controller for 21 years, and in all that time, I've seen no two days alike." How's that for variety?



Shown here are some of the more than 100 persons who recently attended an Air-Share meeting at Amon Carter Field, Fort Worth, Texas.

What is AIR-SHARE? It is a program of discussions between the Federal Aviation Agency and the general aviation public, designed to lead to a revision of Part 43 of the Civil Air Regulations, the air safety rules governing the largest segment of Flying.

Project "Air-Share" is so named because the aviation community shares with FAA the responsibility and rewards of promoting air safety and progress. Appropriately, the motto of this program is "Air Your Views—Share the Benefits."

This program is composed of three phases. Phase I was completed in October, 1961, when FAA held special "grassroots" Air-Share meetings with general aviation pilots throughout the nation. The Southwest Region Phase II was successfully completed on April 28, at Amon Carter Field, where the General Aviation Branch was host to over 100 persons who gathered for a very gratifying discussion. Phase III, the final stage of the program, will be the development and publication of notice of proposed rule-making by the Safety Regulations Division in Washington.

FAA authorities believe that the ideas and comments received from the open discussions with the general aviation public will contribute to a sound and practical revision of Part 43.

Flying Physicians Form Organization To Assist Disaster Areas

Some 2,000 physicians throughout the country have formed a unique disaster organization which is designed to fly emergency medical assistance to stricken areas in the event of a national emergency or widespread disaster.

The physicians, members of the Flying Physicians Association, are those doctors who fly their own planes. The medical profession, like so many other segments of government and industry, is turning to light planes as a means of expanding its field of activity and increasing its service to the public.

Dr. Frank H. Coble of Richmond, Ind., Chairman of the FPA Disaster Program, says the 2,000 enrolled physicians, piloting their own planes and carrying medical supplies and additional medical personnel, are capable of converging on a disaster area in a matter of hours or even minutes to bring emergency relief until regular medical facilities can be established.

Their plan has the cooperation of the American Medical Association, the Federal Civil Defense officials, The Department of Public Health, and the Federal Aviation Agency.

The program is an excellent ex-

ample of the value to the nation of the thousands of privately operated aircraft and the hundreds of thousands of private pilots in times of national crisis such as might be occasioned by a natural disaster or an atomic attack. Under such emergency conditions, small aircraft can over-fly devastated areas and congested or blocked surface transportation, and can land in small open areas such as fields, or highways, or in public parks.

Dr. Coble said a "conservative estimate indicates that it would cost our government in excess of \$60 million per year to duplicate and maintain aircraft and equipment and the stand-by medical personnel and supplies involved in this plan which is already available through the Flying Physicians at no cost to the government or to the taxpayer.

"In the event we are put to an actual test, we do not expect to perform miraculous feats in the field of surgery or in saving lives. We feel our main value perhaps may be in offering some relief of pain and suffering; triage sorting of casualties for groups to follow; bringing hope from outside with the news that there is an outside and that our entire country has not been destroyed," he said.

Since plans must vary from state to state because of location, terrain, industry and population differences, individual state programs for FPA members are being worked out with State Civil Defense and Public Health offices. Some of the results so far:

In Indiana, FPA members can be notified by State Police, and practice fly-ins have been attended by 60 to 85 per cent of the participating physicians.

In Ohio, several mock fly-ins have been held, including an exercise conducted in conjunction with the practice operation of one of the 200-bed civil defense emergency hospitals positioned throughout the country.

In California, the FPA members are ready to help out in emergency medical care, and also in aerial survey of a disaster area, aerial traffic control of ground vehicles, transportation of sick and wounded, and aerial monitoring of radio-active fallout.

Other states in which Flying Physicians programs are being formulated include Georgia, Mississippi, Texas, Washington, Wyoming, Oklahoma, Maine and other New England states, Pennsylvania and New Jersey.

Physicians Stage Fly-In at Big Spring

Members of the Flying Physicians Association staged a fly-in recently near Big Spring, Texas, in an effort to determine their readiness and capability to muster doctors in the event of a national emergency or natural disaster. The doctors flew in on a private landing strip, located at a ranch about 30 miles north of Big Spring. Thirty-two planes participated in the fly-in, each plane carrying two or three doctors. Participants came from Texas, New Mexico, and Oklahoma. Traffic control was provided by MARS portable units loaned by the Air Force, with a local physician, Dr. M. W. Talbot of Big Spring, acting as controller. Local civil defense personnel provided emergency vehicles at the simulated emergency landing site.

The second phase of the fly-in involved taking off from the landing strip and flying in to the Howard County Airport at Big Spring. At the airport, FAA had a display depicting the Agency's participation in Emergency Readiness activities. FAA personnel were on hand to pass out literature and answer questions concerning the FAA Emergency Readiness program.

A Tree Grows at Sulphur Springs SMS

Twenty-six trees, to be exact. Personnel at the Sulphur Springs SMS conducted their own version of Clean-Up, Paint-Up, Fix-Up Month around their facility at the municipal airport. They cleaned up both the building and the grounds, and planted eighteen mimosa and eight silver leaf maple trees on the premises. The community was pleased with the beautification efforts, and gave the FAAers a short write-up in the local newspaper.

Personnel assigned to the Sulphur Springs facility are Walter W. Halmontaller, Chief; John M. Sharber, L. V. Filak, Harvey B. Stanley, and William M. Pryon.

Southwest Regioners Earn More Honors at FAA Academy

EMT Warren A. Mills, stationed at Kirtland AFB, Albuquerque, took top honors in Teleprinter Class 51 at the FAA Academy in Oklahoma City. Tying for the highest final course grade in Radar Option Specialty Class 170 were SEMTs Johnny R. Etheridge and Jack S. Howard, both of the Oklahoma City RAPCON (Tinker AFB). Messrs. Etheridge and Howard each had a final grade of 100.

RETIREMENTS



Flight Service Specialist **Walter J. Norwalk** retires after 34 years of government service, of which 21 years were served with CAA/FAA. Mr. Norwalk has served at facilities in Texas, New Mexico, Arkansas, Florida, Alaska, the Canal Zone, and the Caribbean. He now hopes to be able to devote more time to his hobby, pheasant raising, on his farm near Sheridan, Arkansas.



Another recipient of the FAA retirement certificate is **Charles W. Keith**, a General Aviation Maintenance Inspector. During his 19 years of service with the Agency, Mr. Keith has worked in the Fort Worth, Dallas and Tulsa district offices, as well as the Regional Office. Many general aviation maintenance inspectors will recall Mr. Keith as the man who gave them their first on-the-job training in maintenance inspection.



Flying Physicians in the Southwest Region area held their recent fly-in at this private landing strip about 30 miles north of Big Spring, Texas. Note emergency vehicles and portable control apparatus.

Dr. Gibbons Writes--

Although there are a few illnesses which appear and run a relentless course, the majority of maladies that beset the human organism run a gradual course. Many of the defects that are seen in the Regional Flight Surgeon's office as disqualifying for airmen have not always been disqualifying in that individual; that is to say, they have progressed.

Many of the illnesses which rank high as causes of death in the United States also begin as rather "minor illnesses." For example, a minor kidney infection, if not treated properly, can progress into chronic nephritis, which can lead to death by kidney failure. Or it may cause severe high blood pressure and lead to heart failure.

Moles and certain types of skin lesions may after many years become cancerous. Polyps in the colon may also become cancerous. Certain minor lung conditions, if not properly treated, can cause severe incapacitation. The solution? Although many private flyers complain to the Flight Surgeon that an examination every two years is excessive, everyone should have a physical exam at least once a year.

Your annual physical examination need not include highly specialized tests unless there has been previous illness or a family history of certain diseases. Two items which should be included, however, are a chest x-ray and a routine urinalysis. In spite of what you may have read in certain magazines, there is no danger of excessive radiation from most x-rays, particularly the chest x-ray. The urinalysis can disclose the presence of previously unsuspected chronic infection, kidney malfunction, or diabetes.

Another simple but valuable procedure is digital examination of the terminal gastro-intestinal tract; 75% of cancers occurring in this area can be palpated on digital examination, and indications of prostate gland disease may also be discovered. The blood pressure test, so easily performed, should also be included; it may give early indications of cardiovascular disease.

In summary, why don't you go to your doctor at least once a year? Besides telling you that you are overweight and that you smoke too much, which you already know, he may be able to indicate areas where a great deal of time, expense, and discomfort can be saved. And don't be like the patient whose doctor asked if there had been any significant history of illness in his family. "Well, both of my parents are dead," replied the patient, "but they didn't die of anything serious."

Have You Designated A Beneficiary?

Should something happen to you tomorrow—a heart attack, an automobile accident, or one of countless catastrophes—who would receive your various employee benefits? In the event of an employee's death, beneficiaries usually have three immediate sources of benefits:

1. Pay due and accrued. This can be anywhere from a few hours to several months of pay.
2. Life insurance. The group plan will pay up to double the face value of the policy in the event of accidental death.
3. Retirement benefits. These are either in the form of an annuity or a lump sum payment of your contributions, depending upon your eligibility for an annuity.

Who gets all of this? The person you designate as your beneficiary. If you have never made such a designation, the order of persons to whom these benefits are payable is as follows:

1. Your widow or widower.
2. If neither of the above, benefits are payable to your child or children in equal shares, with the share of any deceased child distributed among his descendants.
3. If none of the above, then to your parents in equal shares, or the entire amount to the surviving parent.
4. If none of the above, then to the executor or administrator of your estate.
5. If none of the above, then to the next of kin under the laws of the state where you live.

It is not necessary for any employee to designate a beneficiary unless he wishes to name some person or persons not included above, or unless he wishes to designate his beneficiaries in a different order from that above. However, once a designation is made, it remains in effect until it is cancelled. If you designated someone as your beneficiary before marriage, for example, and you now wish to make your husband or wife your beneficiary, it is necessary that you complete and sign a new form. This may be done by contacting the Personnel and Training Division.

California leads all states in the number of Federal workers. Other leaders, in order, are New York, Pennsylvania, Texas, and Illinois. Vermont has the fewest Federal employees—3,148.

The way that you suggest may turn out to be the best.

Last Remnant of a By-Gone Era

A recent visitor to Fort Worth's Meacham Field was the Goodyear blimp, stopping over en route to a July 1 engagement at the Seattle World's Fair. The airship is the only non-military lighter-than-air craft in operation in the United States. (The Navy still owns some blimps, but they are reported to be no longer in operation.) Although the craft may well be regarded as the last vestige of a by-gone era in aviation, it is well equipped for jet-age operation, with all the necessary flight instruments and communications and navigation equipment for IFR flying. It does not ordinarily fly IFR, however, but is equipped to do so in case of emergency.

Actually, we are told, it is not entirely accurate to refer to the blimp as a lighter-than-air craft. It ordinarily flies 50-100 pounds heavy, and its two engines, equipped with reverse-pitch propellers, are capable of lifting as much as 600 pounds. Combining engine and "balloon power," the blimp's normal useful load is 1600 pounds. The two-ply rubberized dacron envelope has a capacity of 135,000 cubic feet, with an overall length of 150 feet and a diameter of 41 feet. It has a normal cruising speed of 35-40 mph, with top speed of 60 mph. It usually flies at an altitude of 1,000 feet. Take-offs and landings into the wind are a normal requirement, and the craft can hold or hover if necessary.

Practically the only civilian use for blimps is advertising. The Goodyear blimp is equipped with electrical signs on each side, which convey advertising messages visible for two and a half miles at night. The blimp's home base is the Goodyear plant in Akron, Ohio, although it spends six months out of the year in Florida, and travels around the country a good bit the rest of the time, attending such functions as fairs and shopping center openings. A ground mobile unit travels with the blimp, carrying its servicing and mooring equipment and its ground crew. During flight, the airship is in radio contact with the ground unit, a converted bus.

Though you might not think so from looking at it, the blimp is highly maneuverable, although slower than conventional aircraft in accomplishing maneuvers. In some respects, it is considered safer than conventional aircraft, because even if it sprung a leak in its envelope, it would descend slowly. But as one member of the crew confided, "I sure would hate to be caught up in that thing in a hailstorm."

The Federal Aviation Agency is responsible for the certification of all lighter-than-air craft, as well as the pilots who operate them. The Agency issues a special pilot certificate, good only for operating lighter-than-air craft. Like all other pilots, blimp operators must conform to the requirements of Civil Air Regulations.



The Goodyear blimp, shown moored at Meacham Field, Fort Worth.

Toward Tomorrow

ATC Safety Discipline May Have Broader Application In Solution of World's Problems

By Howard G. Kurtz, Jr.

A towering overcast blankets London, and within its gray expanse hurtle, unseen and unseeing, a score of air transports from as many different countries. Riding confidently in the cabins of the sleek silver carriers are a thousand souls of diverse creeds and breeds. And, although the great ships weave and cross in an intricate pattern of traffic without sight or sound of one another, all are safe . . . all are secure.

Thousands of times each year this fresco of our sky is re-enacted around the globe—New York, Singapore, Paris, Rio de Janeiro, Istanbul, Stockholm, San Francisco, Rome. For against the background of the world's dark frictions, international air transport has created, like a bright beacon of hope, a record of man's capacity to cooperate.

Those who strive for the ideal of human brotherhood at the level of religious organization, or education, or diplomacy, may well note with rejoicing what a high triumph of human capacity for cooperation has been hammered out by pilots, mechanics, engineers, and weathermen at the level of daily toil with the tools of the air age.

We who work with these tools have long ago proven to ourselves that for our building, the golden rule is the law of life . . . that dedication to the enforceable safety of others is the one infallible way to assure our own safety.

We who have laced the globe with a method of travel which touches the doorstep of every man, could not do so without a common denominator. We are of every flag and color and faith and ideology under the sun. We had to find a value upon which all our variations could be reconciled without infraction of the creed or pride of any. And we have found this common denominator in mutual dedication to human safety . . . doing unto others as we would have others do unto us.

Furthermore, in the practical application of this common denominator, we can now testify with certainty that human nature is ready for this discipline of safety. We invoke it every day of every year in every sky of the free world.

Never from the cloudbank above London comes a pilot's voice saying, "Give way to the Union Jack." Never

does a co-pilot cry into his microphone, "I demand priority landing in the name of the one true faith." Yet, if from that cloudbank comes, perchance, a call from an obsolete twin-engine plane, flying the flag of some obscure little principality, "I've lost an engine and cannot hold my place in the pattern," then the great planes of the great flags give way at once and the objective of all concerned concentrates on bringing the little fellow safe to port.

During a recent Christmas season, His Eminence, Francis Cardinal Spellman flew the scheduled airlines westward around the world from New York to New York, spending Christmas Day in Korea. Now none could agree more heartily than we that Cardinal Spellman is a wonderful man; but it was not for this reason that Moslem and Greek Orthodox, Jew and Hindu, Buddhist and Taoist, Protestant and Catholic, and even agnostics among us were instrumental in one way or another in serving Cardinal Spellman. Any human being is a high ranking notable while aloft . . . and this, not for his, but for our own sweet sakes.

This safety discipline . . . this golden rule with the teeth of law . . . this ideal which is essential to our survival . . . stems from peculiar characteristics which distinguish it from the disciplines imposed by force.

In the first place, it reflects what we have found to be universal human impulses. I recall its first conscious impact on my own life. A transport had taken off from Detroit, where I was an airline station manager some 20 years ago. Although icing conditions were not forecast, the Captain of the plane soon encountered them, and promptly radioed a warning back to the station. Without any studied idealism, I swiftly notified each other airline office and the Weather Bureau. Within two minutes, teletype lines were flashing the news to distant ports from which planes might be taking off for Detroit. The mere suggestion of danger had shown that competition among us was only skin deep and could be wholly discounted in any situation where human safety was involved.

In those days there were no company rules or national codes crystallizing human instincts into mandatory safety procedures. But they came soon and they found

ready acceptance around the world. The central fact is that human nature was ready for such a triumph.

Sometimes the fact leads also to new concepts of authority. For example, whose authority runs an airline? Not long ago an airline had planned a special flight for leading publishers and others. It was an ultra important occasion. Guests were briefed and seated. The airline president was beaming his satisfaction. Crew members were at stations. The big props turned over and speeded up. All was set.

Then suddenly the props throttled back and stopped. The ramp was pushed to the door again. The door opened and a blunt bass voice announced, "This airplane won't take off today." It was the voice of the Chief Mechanic. He had found an oil leak. Who runs an airline? Did the president fume at the Chief Mechanic? Not he. "Thank you, Chief," he said, and he de-planed his guests for a luncheon downtown and a departure later in the day in another aircraft.

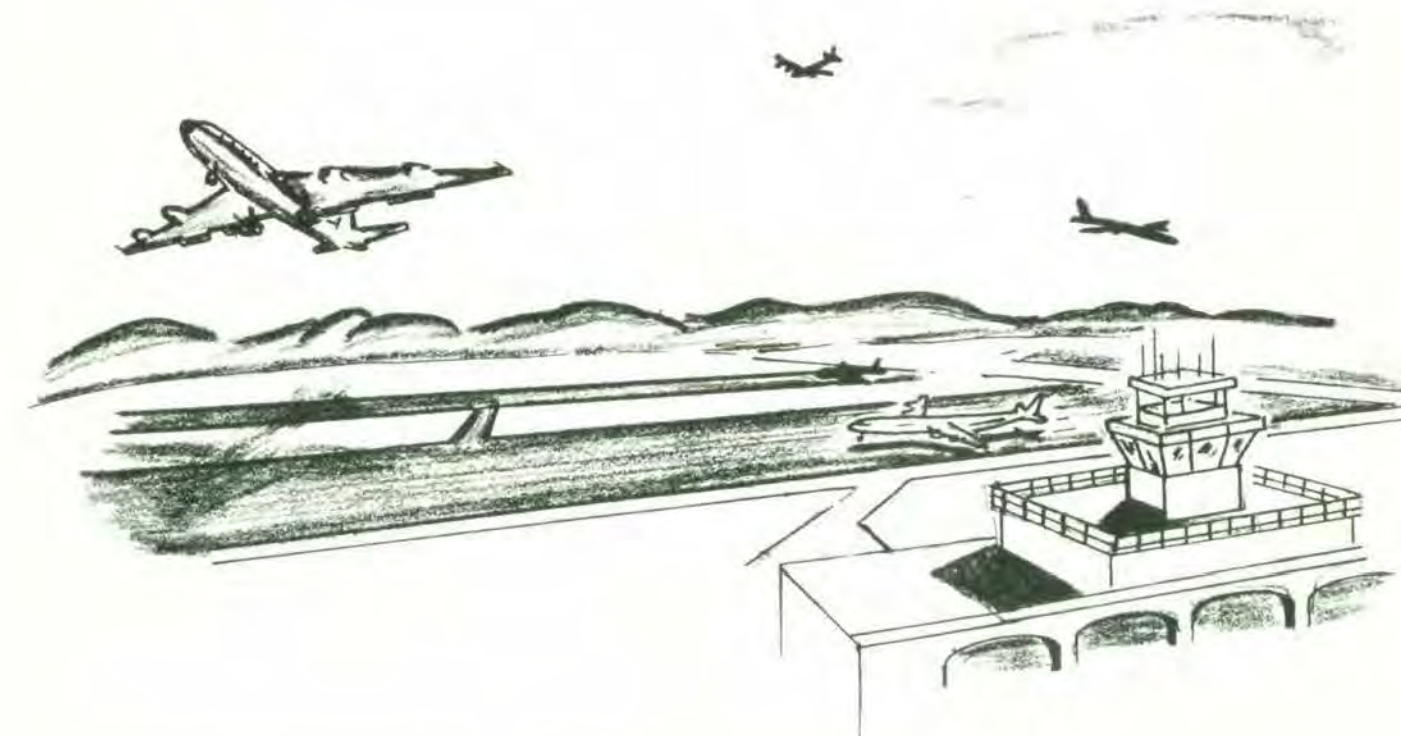
So who runs an airline? Here again it is safety alone that delegates authority . . . not because it is an ideal but because it is the law of self-preservation. And out of experience in application of our golden rule . . . our law of survival, if you will . . . comes a by-product of no mean significance.

Each and all of us come to understand that we can

allow the other to hold fast his faith and pride as "best," "finest," "only," "supreme," without surrender of our own. Who ever developed great faith in something he labelled "second best?" We ask none to conform in any respect except to that ageless common denominator which is central to the teachings of Zoroaster and Paul, Abraham and Buddha, Confucius and all other founders of the known 64 good-will religions . . . do unto others as you would have others do unto you—and that is the crux of human safety.

Could it be, perhaps, that survival for all will emerge from a mutual concern for human safety? Might the eventual brotherhood of man be expressed in voluntary disciplines based upon common respect for human life?

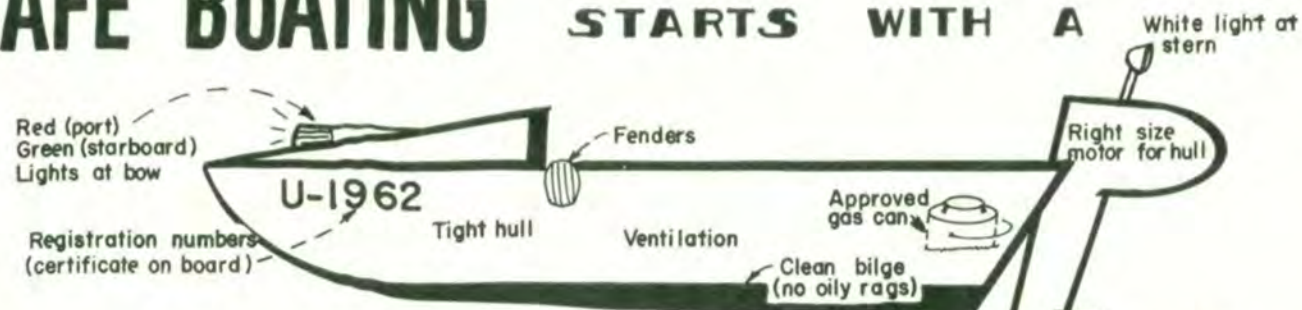
In air transportation our safety procedures have grown immeasurably. In the beginning, they were warnings of danger. Now they are studies of preventive measures against development of hazards. And such is the degree of cooperation that we begin to wonder if our frescoes on the clouds of the skies may have larger implications than the building of international air travel. From our cockpits and desks and laboratories and control towers we believe human nature is ready for higher levels of cooperation. If dedication to the enforceable safety of others could reach beyond the law of life for air travel, what might not accrue to the peace of the world as we struggle toward tomorrow?



Note: The author is a former airline pilot and manager, now Senior Associate in Handy Associates, Inc., a firm of management consultants in New York. This article appeared in *Flying* magazine, and is reprinted here with the permission of the author, who holds the world copyright.

SAFE BOATING

STARTS WITH A



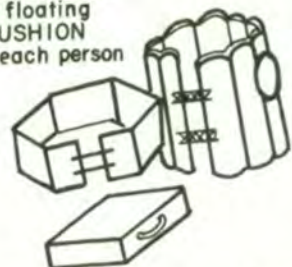
Safe Boat

CHECK

LOCAL and FEDERAL LAWS

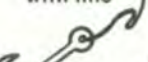
ASK COAST GUARD AUXILIARY FOR FREE BOAT INSPECTION

One approved LIFE JACKET or floating CUSHION for each person

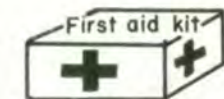
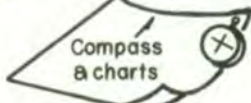


Flashlight

1 or 2 anchors with line



Whistle or horn to cover 1/2 mile



NEXT

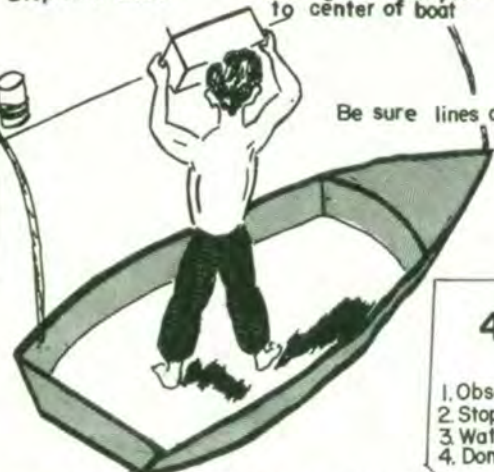
SAFE HANDLING

1. BOARDING

Never Jump into boat
Step into center

Hand gear from pier to center of boat

Be sure lines are secure



2. GETTING UNDERWAY

1. Start slowly
2. Watch out for other boats

4. ON THE WATER

1. Observe rules
2. Stop to help others if needed
3. Watch for FIRE HAZARDS
4. Don't stand up unless necessary

3. LOADING

DON'T over load boat

Distribute load evenly--
side to side, bow to stern



Keep passengers near center
Life jackets handy
Children wear life vest at all times



BE ALERT FOR

Bad weather
Boats
Swimmers
Obstructions
Fisherman
Skiers

WHAT TO DO IN CASE OF

Trouble

If motor fails...trail a Sea Anchor (bucket or shirt with neck and sleeves knotted from bow)

Reduce speed



Head into waves at an angle

Seat passengers on bottom of boat near center line.

CAPSIZED

Put on Life Preserver



STAY WITH BOAT

CAUGHT IN FOUL WEATHER

AVOID FOUL WEATHER by heeding STORM WARNINGS
Check weather forecast before you start -- if weather looks bad head for shore.

Extend oar or line - help him around stern - avoid motor



Keep stern away - shift to neutral

CIRCLE APPROACH INTO WIND - SHUT OFF MOTOR

NEVER LEAVE BOAT UNATTENDED
ALWAYS COME TO AID OF BOAT IN DISTRESS
MAN OVERBOARD

NIGHT: Red flares or sound bell, horn or whistle

CALLS FOR HELP



Ensign upside down



Rapid blow of whistle



White flag or shirt

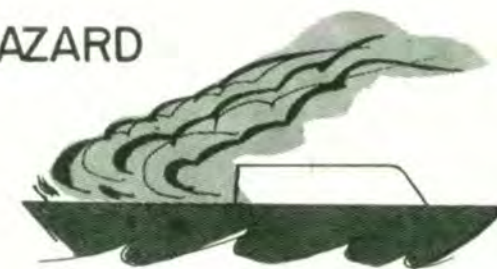
Raise and lower arms



Fire IS A MAJOR BOATING HAZARD

How to prevent boat fires --

1. Don't use flammable materials for interior decorating
2. Keep bilges free of oil and gasoline
3. Carry gasoline in approved safety containers
4. Use alcohol or kerosene in pressure stove for cooking. Gasoline is dangerous -- so is gravity -- fed stove
5. Carry approved extinguishers. Check them frequently.
6. Never fuel at night except under well-lighted conditions.
7. Patronize safety-conscious fueling stations.
8. If possible, remove your fuel tank from boat for refueling.



1/2 pint of gasoline has the explosive power of 5 sticks of dynamite

When fueling



BEFORE

See that boat is properly moored. Forbid smoking in or near boat. Shut down all engines, fans, motors, etc. Extinguish all flames & fires. Close all ports, doors, hatches. Make sure a filled approved extinguisher is handy.

DURING

Do not overfill tanks --- allow for expansion. Don't let one drop of gasoline get below decks. Make sure hose nozzle or can makes metal to metal contact with fill pipe. (Spark of static electricity could cause explosion)

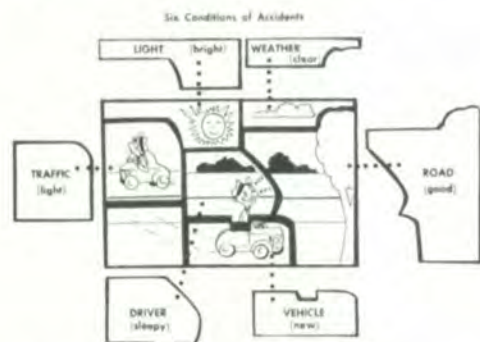
AFTER

Secure fill cap tightly. Wipe up any spillage. Open all ports, doors, etc., and ventilate for five minutes. Ventilate all enclosed spaces and bilges before starting engine or lighting burners.

How the Experts Control Driving Conditions

The summer months present special driving hazards—children are out of school and at play, and people on vacation trips are on the road. Our safety officer suggests these precautions to keep your summer driving from being marred by tragedy:

"The condition of the driver has the greatest effect on accident causes because he can act or react to overcome the effects of other conditions. Our picture here would no doubt be different if we substituted a wide-awake driver for 'ole sleepy'."



"Many of us drive when one or more of the other five conditions must be offset by some action on our part, and we can settle for nothing less than being an expert. We must continue to learn what to do under all conditions if we are to avoid being involved in an accident." Here are some tips to help you control driving conditions:

Left Turn Against Traffic Considered Out-of-Date

Many experts have simply stopped trying to make left turns against on-coming traffic, especially on busy streets. Proceeding beyond the place where you want to turn and using right turns to bring you back across the busy street at a traffic signal can often save time and prevent you from being a "sitting duck" in fast traffic.

Traffic Lights on Fast Roads

Begin slowing down well in advance of intersections. Begin using brake pedal lightly to flash warning to cars behind. This slows traffic behind you, and you avoid becoming a "sitting duck" with high speed traffic bearing down on you. Sometimes, slowing down in advance will keep you from having to stop at all because the light will often change by the time you get there.

What the Puff of Smoke Reveals

When preparing to overtake a car, watch for a smoke puff from the tail pipe. A lazy puff may mean that the driver has just taken his foot off the gas and is preparing to turn. A sharp spurt of smoke may mean he is suddenly speeding up, and you may have trouble if you try to pass him.

New Style for Unavoidable Left Turns

Keep front wheels pointing straight ahead while waiting to make turns. If you are bumped from the rear, you are not likely to be pushed into a head-on collision with oncoming traffic. Also, with the front wheels straight, you may have a chance to move straight ahead if there is a possibility that a car behind is going to hit you.

The Left Front Wheel Signal

When a car is coming toward you in the daytime, practice keeping your eye on the left front wheel. By training yourself to watch that left front wheel like a hawk, you can anticipate any surprise turn before the car begins to swerve into your lane.

How to Cross Railroad Tracks in Traffic

When there is a line of traffic at grade crossings, "bumper-chasing" can get you trapped on the tracks. To avoid being too close to the car ahead of you, slow down and "lie back" until you have room to cross safely.

Prepare Early for Right Turns

By getting into the proper lane well ahead of time, you can avoid being forced to change your route. By waiting until the last minute to change lanes, you will probably find your way blocked.

Be Prepared for "New Rain"

Today's roads are so coated with traffic film that "new rain" after a dry spell makes them slick as ice. It takes at least 30 minutes for a heavy downpour to wash the traffic film off the road. It takes at least a full hour in a light rain, and two hours in a light drizzle before the traffic film is gone. In the case of a new rain, cut your speed sharply and throw away the time schedule.



*If you're always winning awards
for the suggestions you submit—*

—then this information is not for you. You already know how to find ideas and to develop them into award-winning suggestions. But if you have never submitted a suggestion—or if your suggestions are never adopted—then here are some helpful hints for you from our incentive awards officer. First of all, don't expect ideas to come looking for you. Occasionally a lucky accident or a flash of inspiration results in the solution to a problem, but it doesn't happen often. Instead, try this formula:

PICK A PARTICULAR PROBLEM. Break it down into various phases and parts; turn them over and examine them from every angle. Experience shows that you are more likely to succeed if you look for ideas for improving your own work, or closely related work.

KEEP A PENCIL HANDY—and use it—to make notes of ideas as they occur to you, so that you can develop them later.

MAKE A DATE WITH YOURSELF to think about this problem. Give your mind time to work on the facts and experiences it draws from your memory, plus the notes you've made.

SET A DEADLINE for coming up with some new ideas on the subject. Think in terms of **ELIMINATING** waste, duplication, extra handling; **REDUCING** errors, costs; **IMPROVING** quantity, quality, service.

Then test your idea to see whether it gives a "YES" answer to one or more of the following questions:

1. WILL IT SIMPLIFY? Operations — Forms — Methods.
2. WILL IT ELIMINATE? Waste — Accident hazards — Non-essential routines.
3. WILL IT IMPROVE? Service — Working conditions — Procedures.
4. WILL IT ESTABLISH A NEW PRACTICE? That is better — safer — more efficient.
5. WILL IT PROVIDE A SOLUTION? That is understandable — practicable — timely.