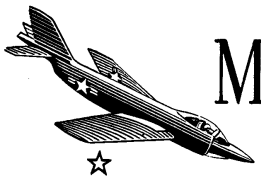
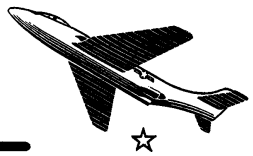


U. S. Navy F3H-1 Demon

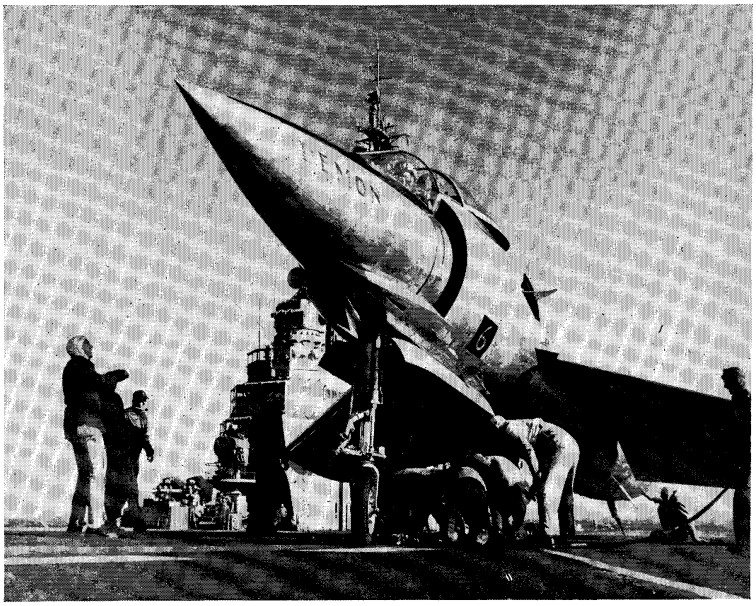
McDONNELL Airscoop



U. S. Air Force XF-88A Voodoo

VOLUME XIII—No. 7 | McDONNELL AIRCRAFT CORPORATION, LAMBERT FIELD, ST. LOUIS, MISSOURI | JULY, 1954

The Demon — New Look on the Navy Horizon



Simultaneously with the 15th birthday of our company, one of M.A.C.'s latest jet fighters, the XF3H Demon carries on in the tradition established by Mr. Mac 15 years ago when he wrote in a letter that "our objective is to be of the maximum service possible to the United States Government." That maximum service has included some vital roles for M.A.C. aircraft. The Demon, though still in the testing stage, is already performing service—and glamorous service at that—by aiding in the Navy's current recruiting drive. The above picture of the XF3H on board the USS Coral Sea in the Atlantic, was recently chosen for distribution to Naval recruiting stations.

—Official United States Navy Photograph.

Air Speeds Get Boost to 1400 M.P.H. In California Wind Tunnel Changes

The $8,000,000 modification to the Southern California Cooperative Wind Tunnel, in which M.A.C. has a one-sixth interest, has been described by Josiah Smith, associate wind tunnel director, according to the Los Angeles TIMES. The wind tunnel, which is located at the California Institute of Technology, is being modified to boost its air velocities to a maximum 1400 miles per hour.

Smith said two giant 20,000 horsepower synchronous electric motors built by Westinghouse will be installed, the tunnel will be lengthened from 179 feet to 239 feet and the wind fan increased from 32 blades to 64 blades to give air speeds of Mach 1.8.

When the original tunnel was built it produced sonic wind velocities or approximately 750 miles per hour. The speed was later boosted to about 900 miles per hour. But with the increased power of jet aircraft engines, it is necessary to have air velocities throughout the entire transonic range in order to achieve satisfactory testing, Smith said.

W. J. Blatz, Chief of Wind Tunnel Testing at M.A.C., explained that following modification the Southern California Cooperative Wind Tunnel will have three test sections. The "subsonic test section" will operate in the range from Mach 0 to Mach 1. The "transonic test section" will be capable of continuous testing from Mach 0 to Mach 1.3 but will normally not be used below about Mach .7. The "supersonic test section" is designed for operations from Mach 1.2 to Mach 1.8 and will also be capable of testing from Mach 0 to Mach 1 if the occasion arises. However, it will normally not be used for subsonic testing.

The tunnel is owned and financed as a nonprofit project by M.A.C, Convair, Douglas, Lockheed and North American and operated by Cal Tech where the facility and the modifications were designed.

The new electric motors will replace the tunnel's present single 12,000 horsepower motor when the facility is shut down about January 1 for the modification work.

Griffith Honored

Virgil V. Griffith, laboratory technician in the Airplane Engineering Division Electrical Lab, has been awarded the top $50 Jauncey Memorial prize in physics at Washington University. Prizes were awarded by the university's Department of Physics to two sophomores.

Competitors wrote short papers on the responsibility of scientists for use or misuse of their discoveries for the prizes, established in honor of George M. Jauncey, noted research physicist in X-rays at the university.

NAS Personnel Get Briefing

Crash crews at the Naval Air Station will soon be better versed in the proper procedure for rescuing pilots and limiting damage to M.A.C. aircraft during routine and emergency landings, than anyone else in the entire country.

A course in Crash Crew Rescue Training is now being conducted for two duty sections—"Port" and "Starboard"—of approximately 16 Naval personnel at the Naval Air Station at Lambert Field. The course which will consist of eight, four-hour classes, is being conducted by Bert Schilling, staff engineer in the Airplane Division, under the sponsorship of the M.A.C. Training Department.

Naval students not only attend lectures at the station but also demonstrations on the M.A.C. ramp and in the flight hangar. When they have completed the course, the men will understand crash rescue work of the entire Banshee and Demon series and the XF-88 Voodoo. Future training will be given covering more advanced M.A.C. airplanes.

The course covers normal and emergency canopy operations, pilot ejection seat operations, cockpit actions necessary on crash procedure, and generalized fire control training. Fire control training pertains to the learning of all compartments in the airplane, the contents and access to the compartments, the location of all fuel, oxygen, hydraulics, and any other possible fire hazards in the event of a crash landing.

The course will also cover training in pilot removal from the aircraft.

Operation "Big Move" To Building 27 Is Underway

Moving 2500-Ton Hydraulic Press In One Trip Largest Single Operation

The "big move" of equipment from Building 1 to the new "expansion to Navy facility," designated by M.A.C. as Building 27, got underway on schedule in June with the beginning of the transfer of raw stores, plating, anodizing, detail paint and the mammoth 2500-ton hydraulic press.

Scheduled for completion by the end of October with the simultaneous completion of the new building, the move is being so coordinated that production won't be halted in any department.

The actual equivalent of moving the contents of one large-sized factory to a new location, moving of machinery from various departments in Building 1 will follow installation of new equipment in Building 27 for use by the same departments. In this way, new mills for example, will be installed just prior to the movement of existing mills in Building 1 so that operators of the mills can work continuously.

Scheduled to begin moving in July are elements of Sheet Metal Fabrication. Such machinery as routers, degreasers, saws, punch presses, brakes and rolls, and drop hammers are part of the Fabrication Department. Also scheduled for a move beginning in July is Receiving Inspection equipment except for X-Ray room components.

Some of the equipment in the present Machine Shop in Building 1 will be moved to Building 27 in August with completion of transfer of all Machine Shop equipment occurring within two to three months.

The present move of the 2500-ton hydraulic press entails the largest operation of transfer of a single machine or item of equipment. Dearborn Machinery Movers, who are under contract to move the hydraulic press, are moving it in one operation rather than dismantling the press and moving it by sections. In order to move it, the hydraulic press must be turned on its side, and placed on a 50-foot long trailer for the trip to Building 27. Relocating of the hydraulic press by this method is the first time this operation has been done in any factory in the Middle West.

Building 27 will add another 485,000 square feet to the more than 2,000,000 square feet of floor space now occupied by M.A.C. The building is being built by the Navy for lease by M.A.C.

Test Pilot Also "Final Inspector"

The test pilot of modern, military jet aircraft is the "final inspector" for the producer of the aircraft.

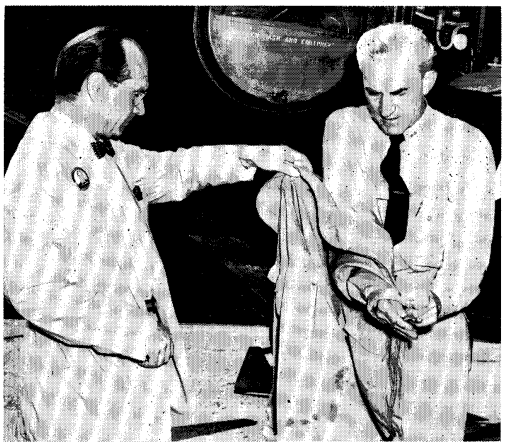
This fact was brought out in a panel discussion among Robert C. Little, M.A.C.'s Chief Test Pilot, and test pilots from Boeing Aircraft Corporation, Wichita, Kansas, and Chance Vought Aircraft, Dallas, Texas, held in conjunction with the Eighth Annual Convention of the American Society for Quality Control, June 9, 10, and 11.

The panel members discussed the test pilot's role as the final inspector in connection with the overall responsibility of quality control in production of military aircraft.

Chef Walker on TV

Some of the problems involved when several thousand "guests" drop in for lunch daily were aired on June 23 over KSTM-TV by M.A.C.'s genial chef, Charlie Walker.

The 5 p.m. program, "Matinee Menu," featured Rosalie Budde as Hostess, who interviewed Charlie for the Channel 36 audience. Included in the discussion were recipes for some of the famed cafeteria foreign cuisine.



A DISTINGUISHED VISITOR to our plant was Rear Admiral Apollo Soucek, USN, Chief of the Bureau of Aeronautics of the U. S. Navy, right, who was greeted by Mr. Mac, left, shortly after the Admiral's arrival here June 22. A noted naval aviator who formerly held the world's altitude record, Admiral Soucek piloted his own attack fighter which is parked on the M.A.C. flight ramp. The Admiral inspected McDonnell production and developmental facilities during his visit.

Fifteenth Anniversary Commemoration Issue

15TH ANNIVERSARY EXHIBIT held in Memorial Hall at Blanchette Park was viewed by an estimated crowd of 8,000. The exhibit was set up to inform the Team and friends of the growth and progress of the company during its 15 year history. Special emphasis was placed on facilities, products, financial growth and team benefits.

Double Honors For Fred Doblhoff

Fred L. Doblhoff had not only one but two reasons to be congratulated by teammates last month. On June 4, he was granted U. S. citizenship, and on June 7, he was made Assistant Chief Engineer in the Helicopter Division.

Born in Budapest, Hungary, March 14, 1916, Mr. Doblhoff was educated in schools in Vienna, Austria. He is a graduate of the Vienna Institute of Technology from which he received a degree in Mechanical Engineering in 1939.

Upon graduation, Mr. Doblhoff was employed by the Wiener Neustaedter Flugzeugwerke in Vienna and eventually rose to the position of Chief Engineer of a newly-created Helicopter Division which built the world's first jet helicopter (and utilized pressure jet propulsion).

In 1945, Mr. Doblhoff was employed by the United States Military Government in Zell Am See, Austria, and the following year was one of a group of foreign engineers and scientists to come to this country in connection with "Operation Paperclip."

After a year at Wright Field, in Dayton, Ohio, Mr. Doblhoff was sent by the Air Force to our plant where he worked as an engineer in the Helicopter Division. Released from the Air Force's jurisdiction in 1950, he was made a M.A.C. project engineer.

He was promoted in February, 1952, to Chief Project Engineer, the position he held until his most recent advancement.

Fred L. Doblhoff

Remember, M. A. C.'s New Tel. No. Is PE 1-2121

M.A.C.'s telephone number will change on July 31 from PArkview 5-7560 to PErshing 1-2121, a number which is included in a new exchange.

The new number, assigned for several months, could not go in effect until other new numbers in the exchange had been assigned.

Where Are We Going Engineering-Wise?

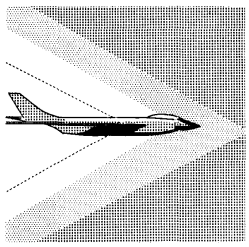
By KENDALL PERKINS, VICE-PRESIDENT-ENGINEERING

There has never been a time in history when weapons were so complex or when they had to be changed so often and so much. This applies particularly to aircraft and particularly to the kind of aircraft we build. Among the reasons for this are:

First, the fact that far more damage is likely to be done in the next major war than has ever been done before.

Second, the fact that a large part of the damage can be done in the first few days of hostilities, hence there is need to have better equipment on hand than the Russians will have, on that unknown day which only they can determine.

Third, the fact that our fighters are just breaking through one technical obstacle, the speed of sound, and just beginning to enter another, even more difficult technical obstacle, the heat due to speed.



Fourth, the fact that the pace of aerial warfare has become so fast that many of the things which a pilot could once do himself must now be done for him by some automatic means—in guided missiles, for example, the whole job of guiding the flight must be automatic.

Fifth, the fact that a number of new power sources—turbojets, turboprops, ram jets, pressure jets, and various kinds of rockets—are now available and these make possible a wide variety of new aircraft arrangements, particularly for helicopters and missiles, which would have been impossible very few years ago.

These conditions make it essential that we keep changing the way we design and build our aircraft. Fighters, for example, will change in many ways, including the following:

1. Wings and tail surfaces will be made thinner. Unfortunately, this will make it even harder to reach inside than it is now. At the same time, skins will often be thicker, so more accurate forming will be needed.

2. Structure which carries heavy loads will become heavier and more elements will be combined into a single part. This will mean more use of forgings and billets, more elaborate machining and more use of new forging techniques. On the other hand, it will reduce the number of parts to be assembled and the extra time spent in fabrication will tend to be offset by savings in assembly.

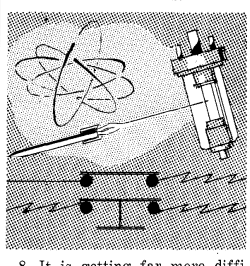
3. There will be more use of tapered and sculptured skins for reasons of rigidity, weight, liquid tightness and smoothness. This and other changes will require a number of new types of machines. Once we have machinery well suited to these new jobs, I expect the man-hours in manufacturing to be reasonable.

4. Outside contours will have to be even smoother than we're asking for now. This will be hard to do and will require changes in design as well as changes in tooling and assembly techniques, particularly at skin joints. We will probably be calling for fewer but larger access doors for the same reason.

5. There will be more and more equipment and wiring and plumbing. In particular, the electronic equipment to help the pilot fly the airplane, tell him where he is, talk with others, find the enemy, and aim the guns and rockets and missiles and bombs, will be called upon to do more and more tricks. We should be making strenuous efforts to see that such equipment is made smaller, lighter, more reliable, and simpler to install and maintain.

6. We're now approaching speeds where not only is the drag greatly increased but the air becomes compressed and gets hot. For example, when an airplane or missile flies at twice the speed of sound, say 1500 miles per hour, at very low altitude the air surrounding the fuselage is heated to between 300 and 400 degrees Fahrenheit. This is not only too hot for comfort but is too hot for plastic materials in the canopy, for liquids in the tanks, for tires in the wheel wells, and for proper operation of nearly every piece of equipment. In consequence, refrigeration equipment and insulation will grow tremendously in the newer fighters.

7. Because of high temperatures, we will also have to change materials in many places. We will have to find better materials for canopies. Titanium or stainless steel are now used in a few places where local temperatures are high but, in the future, you can look for a far greater use of these and perhaps other new materials. We have got to learn all we can about how to design for, fabricate and assemble such materials.

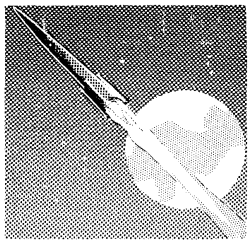


8. It is getting far more difficult and expensive to make changes than it used to be. This means, among other things, that we in Engineering must learn to design and test things more thoroughly, particularly for production contracts. Once a change has been adequately tested, we must find ways to get it incorporated with less time and less cost.

A considerable amount of work accumulates on all new production contracts. In addition to improvements we create, the Government asks for new versions of airplanes, and new equipment, at what seems like an ever-increasing rate.

Missiles present similar problems and are following similar trends. It is difficult to generalize about missiles because there is so little experience to serve as a guide and because missiles vary so widely in speed and use. Unfortunately, technical statements about missiles are also risky from the standpoint of security. Here are a few reasonably safe things which can be said, however:

1. At some time in the future, I don't know whether it's likely to



be nearer 1960 or 1980, more people are likely to be working on missiles than on combat aircraft such as fighters and bombers.

2. We expect to expand our missile activities. I look forward to doing a lot more in such fields as electronic systems and packaging, special instrumentation, ground handling, checkout and firing equipment, laboratory and flight testing, and development for high rates of production.

Helicopter problems are quite different from fighter and missile problems. The world speed record for helicopters stands at about 147 miles per hour and, as long as the rotor must support the entire weight of the machine, there isn't much chance that this speed can be greatly increased. We feel that there is a big advantage in greater speed and are attempting to get this with a form of helicopter, sometimes called a convertiplane, equipped with a wing capable of carrying most of the load while cruising. This can be done most efficiently if we keep the rotor small by using jets at the blade tips and employ a propeller for cruising propulsion. The first machine of this kind ever built, our XV-1, is now being tested before we attempt regular flight. A wind tunnel test program on the XV-1 marks the first time a full scale helicopter has ever been run in a tunnel before trying to fly. This illustrates one of our basic engineering policies here at McDonnell Aircraft—that **we want to do technically advanced things but that we want to carry them out in a conservative way.**

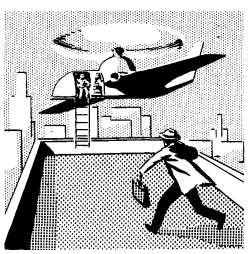
The convertiplane will not be better than other helicopter types, where a lot of hovering is required. We think, however, we have a basically sound new type having many future applications, particularly where added speed is an asset. More speed is especially helpful when you're an airline passenger in a hurry or you're being fired on by an enemy.

The requirements for designing, testing and manufacturing rotors must be markedly different from requirements for fixed airframe structure because the rotor includes many elements subject to high loads which are oscillatory and, to a considerable extent, unpredictable. Yet the structural failure of any of these can be disastrous.

In this respect, a rotor is more comparable with a reciprocating engine than with fixed airframe structure, with which we are more accustomed. Great care is needed in design to avoid notches and irregularities which attract failures, and in manufacture to get very smooth and uniform surfaces. It means that, instead of making a few static tests, we must test a rotor for thousands of hours under various loading conditions before we can be fully confident that it is reliable enough.

This in turn means several other things—first, that the rotor should be so designed and built and inspected that, once a test rotor has been fully tested, all the other rotors built must act the same. Second, it means that the design should be as right as we can possibly make it the first time, because it is not safe to make important changes without completely retesting yet it is obviously not feasible to completely repeat such lengthy tests often.

At McDonnell Aircraft, we aim to design and build airplanes, helicopters and missiles, all of them technically advanced. In our business, this means changes in how things are done and changes are headaches to us all. I'm sure that people in Manufacturing and other divisions must get the impression that changes are often made without due consideration to the enormous amount of trouble they cause.



This is not so. In the majority of cases the cost, disruption and delay which a change creates is very carefully considered before it is decided on. But most changes are improvements. They are the price of progress. In the long run, our success will largely depend on how good we are at changing. If we keep thoroughly up to date in the performance and quality of our aircraft, we are likely to be asked to do more than our share of work in the future.

New Promotions Are Announced

There were four promotions from hourly to salary classifications involving three departments for the period May 17 through June 11. During this period there was one classification change. Six new assignments were made in the Engineering Division.

HOURLY TO SALARY

Asst. Foreman—
Banta, Ronald Vernon
Mepham, Robert Ludington
Asst. Foreman—Inspection—
Sweeney, Cecil L.
Asst. Foreman—Service—
Peyton, Joseph Beal

CLASSIFICATION CHANGE

Asst. Foreman—
Feltz, George A.

NEW ASSIGNMENTS IN ENGINEERING DIVISION

Asst. Chief Engineer—HED
Doblhoff, Fred
Laboratory Structures Staff Engineer—
Killoren, Robert A.
Chief Liaison Engineer, AED—
Landholt, Elmer Charles
Supervisor—Laboratory
Electro-Mechanical Unit—
Lynch, Francis Ralph
Head, Orientation Group—AED
Minard, James V.
Supervisor of Laboratory Staffs—
Muldrow, Erdice B.

Eight Work For Higher Degrees

Eight M.A.C. teammates will be taking it comparatively easy this summer even though they'll be working full time at their engineering jobs.

The reason: the eight are enrolled in the graduate plan for advanced degrees for engineers which is a co-operative program between M.A.C. and Washington University.

The eight engineers have a three-months' respite from the double-barreled load of work and study until the fall semester at Washington University begins. The teammates have already completed two semesters of work toward masters and doctors degrees in engineering fields.

The eight are Billie Mae Redd, Missiles Division, who is studying for a doctors degree in Applied Mechanics; William Huie, also of the Missiles Division, who is studying for a doctors degree in Mechanical Engineering; Roy Post and Raymond Wagner, Airplane Division, Wayne Burnett, Alexander Marshall and John Wilkening, Missiles Division, and James Scheimann, Helicopter Division, who are all studying for a masters degree in Applied Mechanics.

Any graduate engineer who is interested in working for an advanced degree at Washington University this next fall under the special M.A.C. plan should contact K. E. DeMott, Supervisor of Training, anytime before September I.

Over $974,000 Paid to Teammates In Year by Group Insurance Plan

Benefits Have Come To A Staggering $3,702,335 Since Plan Began; Protection To Over 37,000 People

Every Day Is Bargain Day

A brief look at the account of Joe Jones, typical M.A.C. team mate reveals the tremendous value Joe is getting every day through low cost group insurance coverage. Joe earns $4,500 yearly, pays 15c a week for his insurance. M.A.C. pays 85c every week to keep Joe covered. Cost to Joe . . . $7.80 a year; cost to M.A.C. . . . $44.20 a year! Group insurance is one "fringe" benefit of the many which add 40c per hour, $16 per week, or $832 per year to Joe's pay.

The M.A.C. Team has often been compared to an industrial family and, like any other family, it takes all steps possible to insure the health of its members. This additional security is extended to 99.9 percent of our 12,400 team mates. With an average of three persons per family, approximately 37,200 are covered by the M.A.C. group insurance plan!

The Figures Speak

Some idea of the size and scope of the plan may be gleaned by figures for the last contract year which ended in May, 1954:

A total of 32 death claims resulted in the payment of $125,500; 7 accidental death and dismemberment claims came to $25,000; 2,425 sickness and accident benefits totaled $192,708; and hospital benefits for 7,065 persons came to $330,901.

This total of $974,109 paid out in the past year swells total benefits paid since the plan's inception to a whopping $3,702,335! This is a sum equal to almost $300 for every team mate now covered by the plan!

M.A.C. Pays 85%

Hailed as one of the best in the aircraft industry, the Improved Group Insurance Plan provides more coverage for the money than the one originally in effect at M.A.C. Put in effect in 1950, the new plan has liberalized benefits considerably. In order to make coverage available to all, the company pays 85% of the premium of all employees.

Under the old plan—as well as many now in effect at other companies—premiums for dependents varied according to the number of people covered. The improved plan covers all dependents, regardless of number, for a flat 84c per week.

Cost Varies with Pay

Benefits are paid according to the insurance code number under which premiums are paid. Weekly cost to each team mate varies according to base rate of pay and whether or not coverage is extended to dependents. All employees receive identical hospitalization benefits; life insurance, accidental death and sickness and accident benefits vary according to premiums paid.

In addition to life insurance and accidental death and dismemberment, benefits also include an accident and sickness weekly payment for time lost from work, a daily hospital benefit, a payment for special hospital charges and payments for ambulance and surgical expenses.

Life Insurance

Life insurance benefits are payable to beneficiaries for death from any cause. A "total disability" clause continues coverage without premium payment should the insured become totally disabled before the age of sixty. The "conversion" clause provides continuance of insurance for 31 days after employment termination. During this time the insurance may be converted to an individual policy without medical examination.

Accidental death and dismemberment benefits provide for full payments to beneficiaries in case of accidental death while off the job. Complete payments are made for the loss of both hands, feet or eyes, while one-half of this amount is paid for loss of one of the above.

Other Benefits

Accident and sickness benefits are paid in the form of weekly indemnities, starting with the first day of disability due to accident or the fourth day of disability due to sickness. Payments are made for a maximum of 13 weeks during any one period of disability.

Hospital benefits help cover the cost of room and board up to a maximum of 31 days, except in case of pregnancy. Special hospital charges—drugs, X-rays, oxygen, operating room—are paid to a maximum of $217 for each employee and $186 for each dependent.

Top limit of the ambulance charge benefit is twice the daily benefit. Surgical payments cover charges for operations occasioned by non-occupational accidents. Maximum benefits are $300 for each employee and $200 for dependents.

Not Workmen's Compensation

Although there is some tendency to confuse the M.A.C. group insurance plan with workmen's compensation insurance the two plans are entirely separate. Group insurance is purchased by the employee and M.A.C. to cover team mates and dependents for accident or illness incurred **off** the job; workmen's compensation insurance is carried and paid for by M.A.C. only and covers the employee for injuries sustained **on** the job.

Claims must be initiated by the insured, but from then on, the efficient machinery of Frank Ker, Supervisor of Employment Services, takes over. His staff, Birdie Christman, Clerk Specialist, and Hazel Love, Clerk Typist—make sure benefits are paid to all who realize them.

Streamlined Application

Application for benefits has been streamlined for utmost efficiency. The insured is asked for a brief history of the disability and other routine facts. Payment may be made directly to the hospital by the General American Insurance Company adjuster, or to the insured.

The 50 to 60 calls daily into the office of Frank Ker speaks well for the widespread Team interest in the plan. Frank, Birdie and Hazel make it their business to answer questions promptly and accurately. They're busy . . . but never too busy to answer another question about group insurance. They can be reached on stations 407 or 408.

Filing Claims

Questions most frequently asked are those involving the filing of claims and receiving payments. But the entire process is clear cut and simple. The claimant is asked to request a claim form from the insurance office in the Personnel Building as soon as possible after the disability is incurred. The employee fills out his portion of the claim and requests his personal physician to complete the section indicated. The employee brings the form back to the M.A.C. insurance office along with the bills. The form and bills are sent to the General American Company's adjuster who prepares the check and sends it to the insurance office where it is then mailed to the claimant's home or sent directly to the hospital.

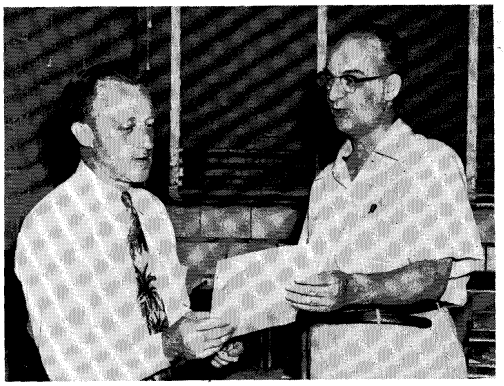
Insurance Claims Paid

A total of $75,566.46 was paid on group policies issued by the General American Life Insurance Company to employees of McDonnell for the month of May, the MAC insurance department has announced.

Death Claims	$11,500.00
Accidental Death and Dismemberment	5,000.00
Weekly Sickness and Accident Benefits	11,114.68
Hospital Benefits	47,951.77

A Ripe Old Age . . . And Then Some!

One group insurance claim paid recently came to $1,095. The team mate on the receiving end of the benefit had been paying 15c per week through payroll deduction for his personal coverage. The M.A.C. group insurance office figured that, had the employee been forced to pay off the claim himself at that rate, it would take him 140 years!



"I WAS LUCKY" Ralph Kuster, tool designer, right, tells Frank Ker, Supervisor of Employment Services, as Frank hands him check to help defray expenses for accident to injured hip Ralph's son suffered. Ralph said "I am lucky to have the insurance to cover not only the accident but also two serious illnesses and an operation last year." (Ralph added he was lucky to be in the plan but people who don't collect are even luckier than he!)

INSURANCE OFFICE where your claims are handled promptly and efficiently is pictured above. Here Hazel Love and Louise Dyer, clerk-typists, left and right, are hard at work sorting and typing the more than 130 claims that come in weekly. Birdie Christman, a clerk specialist, center, who has been with the company in her present job for eight years, is well qualified to answer all questions pertaining to claims and benefits.

Carrier Operations More Complex and Exacting as Jets Develop -- Van Dusen

Vernon Outman, Chief Technical Engineer in the Airplane Division, greeted Commander Charles A. Van Dusen, Staff of the Chief of Naval Operations, on the occasion of Commander Van Dusen's visit to the M.A.C. plant. Commander Van Dusen spoke to members of the Institute of Aeronautical Sciences, St. Louis Section, May 26 on "Naval Air Operations."

"At low altitudes, a jet engine consumes fuel faster than you can pour water from one bucket into another"—and for that reason, more rigid and coordinated landing procedure on an aircraft carrier is necessary.

This was pointed out in a speech by Commander Charles A. Van Dusen, Staff of the Chief of Naval Operations, to members of the Institute of Aeronautical Sciences at their meeting May 26.

The consumption of so much fuel by jet engines at low altitude is one of the reasons why the handling of jet aircraft on carriers is much more complex and exacting in many instances than that of propeller-driven airplanes, Commander Van Dusen said.

Carrier Precautions

The Commander spoke of precautions which are taken aboard carriers: special care must be taken by the deck crews in order to insure the maximum safety for the carrier personnel, as well as for the flight crews; the deck crews must be thoroughly trained in the art of securing, taxiing, relocating, landing and catapulting jet aircraft; and stronger and more effective and reliable arresting gear and crash barriers have been installed to provide for the landing of the faster jets.

Commander Van Dusen told of the great advancements being made in aircraft carrier design and said that one of the most important contributions made to increase the effectiveness of an aircraft carrier was the introduction of the canted deck.

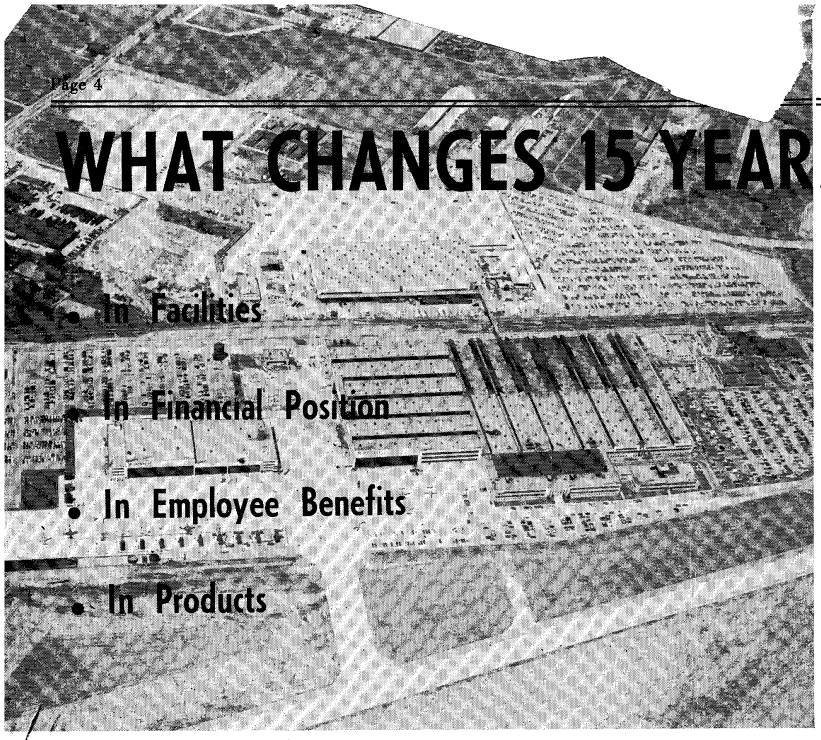
Films were shown in connection with Commander Van Dusen's talk on changes in carrier operation and the Navy's new vertical take off turbo-prop airplane, the XFY-

Weaver IAS Judge

Prior to the meeting, announcement of undergraduate winners in the First Annual Student Paper Competition, sponsored by the St. Louis Section of the I.A.S., was made. John D. Weaver, assistant to the Vice-President, at M.A.C. was one of the three members of the board of judges.

ULTRA SONIC INSPECTION TECHNIQUE was featured in a general, technical exhibit by M.A.C.'s Quality Control Department in conjunction with the Eighth Annual Convention of the American Society for Quality Control at Kiel Auditorium June 9, 10 and 11. The working exhibit demonstrated ultra sonic inspection by submerged techniques against a backdrop of a photo montage of M.A.C. operations and products. A display board showed the typical flaws revealed by ultrasonic inspection technique. Paul Durham and C. J. Varney of the Quality Control Department, were on hand to explain the exhibit to visitors, some of whom are shown above.

Please return to Ed Regan
Dept. 90



S OF TEAMWORK

"... Our objective is to be of the maximum service possible to the United States Government in the design and manufacture of airplanes. With this end in view we are building an organization which will be exceptionally strong in creative airplane research and design and in economical factory production. We are going to operate as a constructive influence in this industry ..."

—From a letter by Mr. Mac to the Chief Contract Section, Materiel Division, Wright Field, Dayton, Ohio, dated July 26, 1939.

M.A.C. Growth Shown in Area Expansion

Company Started in an Airlines Office 15 Years Ago, Now Occupies Over 2 Million Sq. Ft. of Floor Space

The selection of the Lambert Field location in the area of St. Louis as headquarters for a new aircraft manufacturing company in the summer of 1939 was of significance to only a few persons.

The "company," McDonnell Aircraft Corporation, was, after all, a firm employing only two people. The bright prospects for its future and significance to the city of St. Louis existed only in the imagination of its founder, Mr. Mac.

Nevertheless the search for a likely spot for the aircraft company had been made with utmost care. Factories in twelve different cities had been investigated—and found wanting.

With the final selection of the Lambert Field location, Mr. Mac wrote to the Chief Contract Section, Material Division, Wright Field, on July 26, 1939, that "the St. Louis Lambert Field location was selected because the economic factors were satisfactory, and the location deep in the interior of the United States was in line with good national defense policy."

Soon afterward an office was rented from an airlines company, and arrangements were made to purchase in January of 1940, 36,000 feet of factory space, complete with airplane manufacturing machinery. But facilities for the growing demands of the new company could barely keep pace, and in August, 1941, it was announced that M.A.C. had purchased an 87½-acre tract for the company's needs. Not only the needs of production and administration were taken into consideration, the interests of employees were regarded, too. The announcement also said "47 acres of this tract are immediately available for softball games or any other recreational use by personnel of our company."

By December of 1941, the new company was using 115,446 square feet of floor space and had moved into six buildings. And by the end of February, 1942, occupied floor area had increased 30 percent of what it had been in December, 1941.

"World's Largest Garage"

In October of 1942, the press carried stories concerning M.A.C.'s lease of the Eighteenth Street Garage, which had advertised itself "The World's Largest Garage."

In mid-October of 1943, M.A.C. increased floor space appreciably when it leased a building at 4202 Lindell with approximately 34,000 square feet of space. Shortly afterward, in November of the same year, M.A.C. acquired an additional 27,000 square feet of floor when it signed a lease for additional facilities at Lambert Field.

With the announcement of the first flight of a new M.A.C.-built twin-engined trainer in Memphis, it was also revealed that M.A.C. facilities had been expanded to include the Memphis factory and that activities had started there from near "scratch" earlier in the year of 1943.

The Memphis plant was actively in production throughout the war, but with the war's cessation in 1945, the plant previously occupied by the Curtiss-Wright Corporation at Lambert Field was leased, making possible a consolidation of all of M.A.C.'s operation.

Permanent Home

The plant was ideal for all of M.A.C.'s diverse activities—from research and development to production and administration and the "big move" was scheduled for November of that year. On January 8, 1946, it was revealed that M.A.C. had a total of 1,200,000 square feet of floor space, quite a contrast to the 2,140 square feet used when the company started its operations a scant five and a half years before!

Perhaps the next most urgent need with the continuing fulfillment of production and experimental contracts was a large hangar and a contract for a $1,500,000 structure was let to house production and experimental test flight operations October 22, 1950. But before work on this project was very far along, one of the most important announcements concerning M.A.C. facilities was made.

In July of 1951, M.A.C. purchased the main portion of the plant for a total of $9,873,093. This was perhaps the most important acquisition in the short history of the company for it not only meant that M.A.C. could have its permanent "home" but also that the company could go ahead with plans for improvements and additions necessary for the M.A.C. expanding workload.

Research Facilities

The new facilities were not long in becoming reality. These included a new microwave laboratory, a wind tunnel, the flight test hangar announced earlier, and a propulsion laboratory—all in all, a $20 million facilties program. First of these to be completed was the microwave laboratory. In turn all of the facilities at Lambert Field were completed, with partial occupancy occurring even prior to completion, so great was the need for each particular facility.

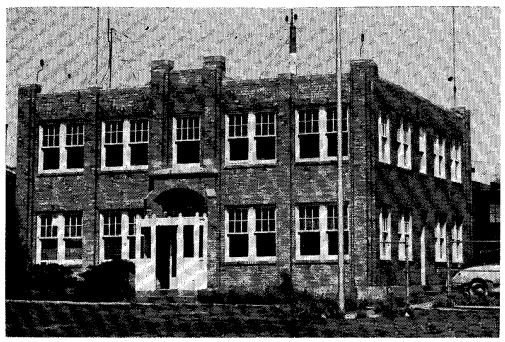
Last to see completion was the $1,000,000 wind tunnel, which will shortly be utilized for testing programs for M.A.C. aircraft.

The new $7,500,000 factory, an "expansion to Navy facility," though not an actual part of the facilities program as such, since it was built and financed by the Navy, nevertheless could be included among plans for M.A.C.'s expansion. The Navy's reason for constructing the building was to lease it to M.A.C. to house the Machine Shop, Fabrication and Receiving Operations.

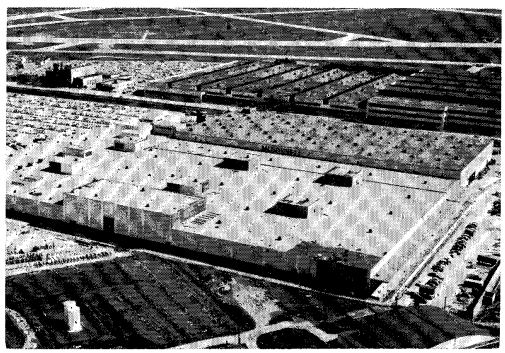
"Big Move" Underway

Announced in February of this year after work had started on the building, the Navy factory is already partially occupied with M.A.C.'s raw stores and the first of the heavy machinery which will eventually be housed there. The building is scheduled for completion in about October of this year.

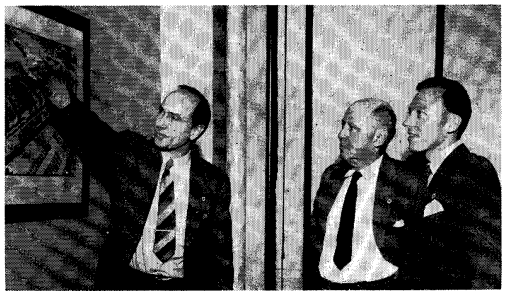
Upon completion, the huge factory, designated M.A.C. Building 27, alone will add 485,000 square feet of floor space to M.A.C.-owned or leased property. The total floor space in all will be 2,581,476 square feet, or almost 72 times the amount of floor space M.A.C. had in the fall of 1939!



THEN . . . M.A.C.'s first site on Lambert-St. Louis Airport was a modest office on the second floor of this building. Although founded in July, 1939, the company did not occupy this office until later during the same year when the personnel had expanded from 2 to 15 employees.



NOW . . . during the month of its 15th anniversary, M.A.C. is moving raw stores from Building 21 and heavy machinery from the main plant to the new $7,500,000 "expansion to Navy facility," a factory with 485,000 feet of floor space which M.A.C. is leasing from the Navy. The new factory is the latest M.A.C.-occupied facility and will house the Machine Shop and Fabrication and Receiving Operations. It is scheduled for completion in October.



THESE THREE MEN constituted McDonnell Aircraft Corporation on July 6, 1939, the date of incorporation. Left to right are Mr. Mac, President, who founded the company; Thomas S. McPheeters, member of the Board of Directors and legal counsel; and Lou Ritter, former teammate, and at that time Mr. Mac's secretary. The picture was taken for the occasion of M.A.C.'s fourth anniversary.

Sales Totaled $538,302,871 Thru Mar. 31

Perhaps the most dramatic example of the American way of life is how a dream actively pursued can emerge into a large, internationally-known corporation in a short span of time.

If so, M.A.C. is, perhaps, one of America's most dramatic examples. Since July 6, 1939, the date of incorporation, it has grown from two employees to 12,400; from a small airlines office to a floor space of over 2,000,000 square feet; from no sales to $538,302,871 (through March of this year); from a weekly payroll of a few hundred dollars to over $1,000,000; an insignificant number of orders to a $500,000,000 backlog of contracts to fill in the present and future.

Though the company was aided in its growth by the fact that a consumer (the U. S. Government) wanted M.A.C. products, it could not have grown so fast or so large without wise planning as to how its assets were to be spent.

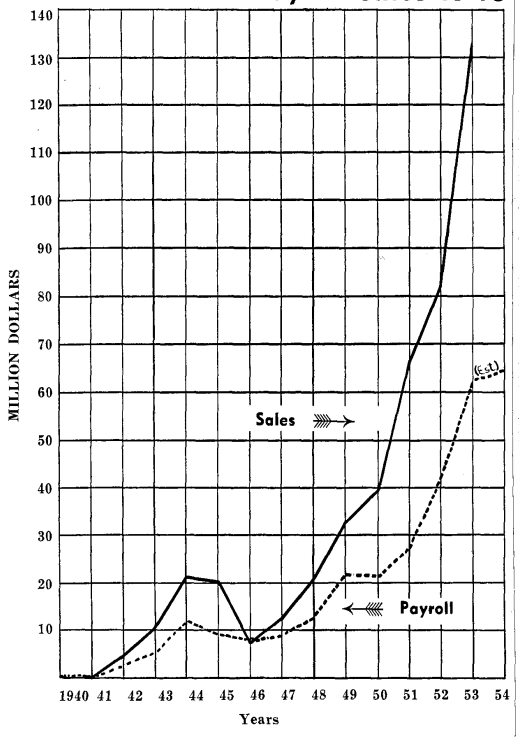
During 14 years and nine months (through March 31 of this year) M.A.C. has realized sales totaling $538,302,871. For each sales dollar, expenditures have been made as follows: 51.8 cents for the payroll with M.A.C.'s ten highest paid executives realizing four mills of that amount; 32.1 cents for materials, parts and supplies; three cents for employee welfare; 3.9 cents for taxes for the government; 3.6 cents (earnings) for dividends or retained for growth; 3.7 cents for rent, heat, light, maintenance, depreciation and plant insurance and 1.9 cents for all other operating expenses.

The greatest portion of the amount realized from sales has been spent for the services of employees, and this amounts to the whopping sum of $278,803,346. Materials, parts and supplies have cost $172,890,569. Other expenditures and totals are: employee welfare, $29,095,378; all taxes paid by M.A.C., $27,643,176; rent, heat, light, maintenance, depreciation

(Continued on Page 5)

AND GROWTH HAVE BROUGHT TO M.A.C.

Annual Sales and Payroll Since 1940



—— Sales increases

- - - Payroll increases

Many "Firsts" Helped Establish Firm In 15-Year History of Fine Products

USAF XP-67 "Bomber-Destroyer" — Twin engine, prop-driven fighter the first M.A.C. design to win an experimental contract. Successfully flight tested in 1944.

★

USN FH-1 Phantom—First all-jet fighter to be put into production by the Navy and also the first to successfully land and take off from a U.S. aircraft carrier.

★

USN XHJD-1 Whirlaway—First twin engine helicopter and one of the world's largest, weighing over 5 tons with a payload of over 2,000 pounds.

★

USN KDH-1 Katydid — Radio controlled target drone that could be catapulted on land or sea and recovered by means of parachute.

★

USN RTV-2 Gargoyle — 1,000 pound self-propelled armour-piercing bomb flying by radio control to seek its target at a speed of more than 600 m.p.h.

★

USN F2H-1 Banshee—First of the famous Banshees, a twin-jet, service-type fighter credited with setting an altitude record for jets of 52,000 feet in 1949.

★

USAF XF-85 Goblin — Swept wing, jet parasite fighter designed to operate by a hook from a "trapeze" in the bomb bay of a B-36: speed in the 600 m.p.h class.

XFD-1's Air Combat

The first official announcement of a combat role for M.A.C. aircraft was not revealed in communiques from Korea. It came instead from Mr. Mac in an announcement to the team August 1, 1946.

Seems the XFD-1 Phantom, while flying at NAS, Patuxent, was attacked by a buzzard! Though the "enemy" was dogged, the M.A.C. plane was rugged. The Phantom chalked up a kill.

USAF XF-88A Voodoo — Long range, twin-jet penetration fighter capable of carrying bombs and rockets: the experimental prototype of the F-101 Voodoo.

★

USAF XH-20 Little Henry—World's first ram-jet helicopter, a "flying test stand," weighing only 280 pounds and capable of lifting twice its own weight.

★

USN F2H-2 Banshee — An outstanding operational fighter of the Korean War and the first M.A.C. plane to see combat service: greater range than the -1 due to tip tanks.

★

USN F2H-2P Banshee—Photographic reconnaissance version of the Banshee equipped with six interchangeable aerial cameras, which saw extensive duty in Korean waters.

★

USN F2H-3 Banshee—A longer Banshee, with increased armament, more powerful radar, greater fuel supply and special electronic installations for all-weather operations.

★

USN F3H-1N Demon — Swept wing single jet all-weather fighter combining interceptor speed and fighter maneuverability with the pay-load of an attack bomber.

★

USAF XF-88B Voodoo—A turboprop version of the Voodoo built to conduct a research program in the field of supersonic type propellers.

★

XV-1 Convertiplane—First military aircraft of its type embodying a completely new concept of flight which combines horizontal and vertical flight with rotor and propeller.

★

USAF F-101 Voodoo — Long range, twin-jet fighter designed to escort bombers, attack distant targets and provide close support for ground troops. (Details are confidential).

Employee Welfare Is Tradition Carried Thru from Early Days

From the date of its incorporation, July 6, 1939, M.A.C. has been a company dedicated to the premise that every employee is a member of a Team working to accomplish a single goal. This premise is well-founded on fact, for a group of people working toward the same end accomplish more than a few individuals pulling in different directions.

But a team member, to get into the proper spirit, has to be a happy individual and reasonably secure. His family, too, must share that well-being.

A company cannot provide unlimited security for an employee. (It would in all probability defeat its purpose by destroying the employee's initiative and, in the end, even the employee's security by going out of business!) Providing reasonable security for its employees, while, at the same time, growing into a stronger company, was M.A.C.'s purpose in the beginning. It still is.

In the past 15 years, many programs have been initiated at M.A.C. for the benefit of employees. Because of that extra help, whether financial (perhaps in the form of group insurance which enabled the employee to pay the major portion of a steep hospital bill) or merely recreational (perhaps he made new friends while bowling on a company team), he was given the opportunity to better himself.

On M.A.C.'s 15th anniversary, that "extra help," provided in addition to regular pay, has grown to an impressive 40 cents per hour per employee!

What are those benefits and what has M.A.C. contributed over the years? The major ones include:

The M.A.C. Improved Group Insurance Plan from which employees, their dependents and beneficiaries have collected a total of $3,-702,335. Of that total, life insurance benefits have been $654,-125; accidental death payments, $155,000; weekly disability benefits, $783,791; and hospital and surgical sums totaling $2,109,419 (61.5 percent for dependents).

The M.A.C. Retirement Income Plan in which M.A.C. put $6,542,-868 for past and current services from the plan's introduction on May 30, 1949, through April 30, 1954 (figures are not yet available for the last two months.).

The M.A.C. Training Program, started in 1948, in which 17,561 employees participated in 162 courses for 1,887,146 man-hours until 1953. From September, 1953, to the present date, 3,663 employees spent 229,771 man-hours on 68 courses. The training program helps a man to help himself. Partly because of it, 685 of the team were promoted in the past year, and this figure does not include upgradings.

The M.A.C. Recreation Program which offers over 50 different services, activities, programs, special events, sports and clubs in which employees can participate. These include everything from a listing of baby-sitters to bowling to home movies.

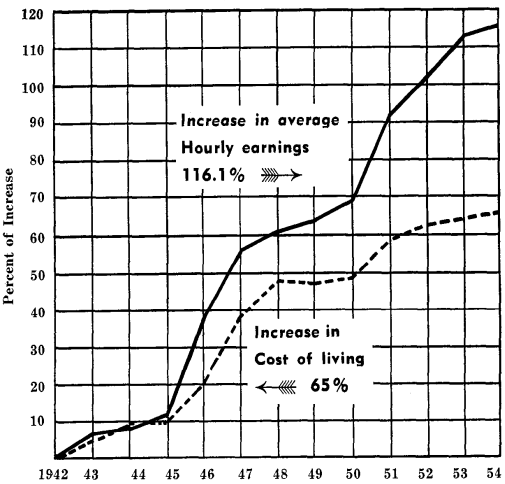
M.A.C. Program of Communications in which various publications inform employees of current issues at M.A.C., new methods and materials, M.A.C. products, or ways in which the employee can better himself.

But there are many additional intangible benefits which M.A.C. has provided for employees. To more or lesser degree, teammates have benefited from veterans reemployment, employee representation, accident prevention, injury protection, food service, counseling, vacations, employee purchasing service, access to publications and films, and the M.A.C. Charity Trust.

The M.A.C. Charity Trust deserves special mention because it enables employees to contribute to worthy charitable, educational and civic projects on a pay-as-you-go basis. In the past five years, Charity Trust team members have given $433,400. M.A.C., too, has given corporate gifts amounting to $675,748 to worthy causes.

All of the benefits are as much a part of M.A.C.'s payment for employees' services as wages and salaries. And the fact that these benefits have been substantial in terms of dollars and cents is proven by the fact that three percent of all of M.A.C.'s sales since the company's founding have been spent for employee welfare!

M.A.C. Wages v.s. Cost of Living



—— Increase in average hourly earnings.

- - - Increase in cost of living.

Since 1942 the average hourly earning has increased by 116.1% as compared to the 65% increase in the cost of living, showing that M.A.C. pay rates have risen over 1¾ times the cost of living.

Sales Total Thru Mar. 31

(Continued from Page 4)

and plant insurance, $19,870,897; all other operating expenses, $10,-427,010; dividends $3,312,653; and earnings retained for growth, $15,-957,332.

M.A.C.'s rapid and astonishing growth is dramatic. Its sales and its expenditures have been impressive. On the one hand, the sales have meant that our government has had additional weapons for its defense and security. And on the other hand, the expenditures have aided in bolstering the American economy, particularly in the Greater St. Louis area.

In addition to providing a dramatic example of the American way of life, simply through astounding growth, M.A.C. is an example in another way, too. What success it has known is shared jointly with the nation.

CHANGING STYLES IN JET FIGHTERS over a six-and-a-half year span of M.A.C. history is represented in the picture above of four McDonnell airplanes. The span covers the period from January, 1945, the date of the first flight of the Phantom, to August 1951, the date of the first flight of the XF3H-1 Demon. Left to right are the FH-1, the Navy's first all-jet, carrier-based fighter; the "all weather" F2H-4, latest of the Navy Banshee series; the Air Force XF-88B, modified for research on supersonic turboprop propellers; and the F3H-1 Demon. These are but four of the different models of helicopters, jet fighters and guided missiles developed during M.A.C.'s 15-year history.

McDONNELL Airscoop

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"It ain't the individual . . . nor the outfit as a whole . . . but the everlasting team-work of every bloomin' soul."—Kipling.

Volume XIII July, 1954 Number 7

From Humble Origins . . .

On July 6, 1954, the 12,400 members of the M.A.C. Team will return to work after a three-day holiday. We will park on paved lots, enter well lighted and ventilated office and factory areas, and work a standard eight-hour day tinged somewhat with regret that the holiday is over.

On July 6, 1939—fifteen years ago—the two employees who comprised the McDonnell Aircraft Corporation also started work . . . but under vastly different conditions. Just how different can best be illustrated by the personal experience of Gary Covington, Vice President, Airplane Engineering, who will be the first M.A.C. employee other than Mr. Mac, to celebrate his fifteenth anniversary (on September 13).

Armed only with the knowledge that M.A.C. occupied the second floor of an American Airlines Building at Lambert Field, Gary arrived in St. Louis to begin his new career. Queries directed to redcaps and the staff at the American Airlines ticket office at Lambert Field brought forth only shrugs. The McDonnell Aircraft Corporation was unknown.

. . . A Name

An employee strolling by finally suggested that Gary inquire at the small office building across the ramp. He reached the hangar adjoining the building where he was again subjected to a chorus of: "Never heard of 'em." A voice, deep within the hangar finally volunteered: "Maybe they're the fellas upstairs."

"Upstairs" proved to be far from reassuring. A few dozen army cots festooned in dirty mosquito netting, piles of dirty clothing, clouds of dust and some cloth shreds draped from the windows . . . it just didn't seem like an aircraft corporation.

But beyond this vacated Naval cadet barracks came the heartening sound of a busy typewriter . . . and there, behind a partition, was the McDonnell Aircraft Corporation—September, 1939.

Mr. Mac, sitting on a packing case, was talking to his secretary, Lou Ritter, who was proud possessor of the company's major office equipment—a desk borrowed from Mr. Mac's home.

After Gary located his own packing box, he was given the collateral duty of purchasing agent. In this capacity he was in charge of renovation and procurement of enough furniture to accommodate the dozen employees due to report the following week.

. . . A Future

The first company picnic was held at a State park shortly after organization. The fifteen or twenty people in attendance gathered under the trees to play a little and dream a lot . . . big dreams of the day when the company would secure its first contract.

Many of that early group . . . Lyle Farver, Si Toder, Al Utsch, Jesse Keyes, Bob Baldwin and Bob Field . . . will look back at those early days with a touch of nostalgia. Messrs. Toder, Baldwin and Field also look back with a touch of something akin to muscular fatigue, for they truly started at the bottom. There being no engineering work at the time, they commenced their aviation careers by digging a necessary pit near the old Ryan Building for M.A.C.'s first hydraulic press.

Thus it all began . . . a little humor, a prodigious amount of hard work, plenty of courage and foresight . . . a living example of the good old American tradition of free enterprise.

Two Observe 10 Years At M.A.C.

Two teammates will celebrate their tenth anniversary with McDonnell during July, the month M.A.C. is observing the 15th anniversary of its founding.

Those observing a decade at M.A.C. are Ernest P. Hill of Tool Machines and Henry L. Collier of Production Inspection.

We all join in offering them our heartiest congratulations.

Third Shift News

By
L. J. FREY

Congratulations to Mr. and Mrs. Orville Stoer, who were married June 4 at the First Presbyterian church of Cuba, Mo. The ceremony took place at 8 p.m. and immediately after, a reception was given at the home of Mr. and Mrs. C. L. Rector of Cuba.

The bride is the former Miss Lola Marie Ramsey of Ridgeway, Illinois. Orville works in Tool Grinding, and everyone extends best wishes to the young couple.

The "MAC 3rd" Ball Team won its fifth straight game when Jack Young pitched a one-hit game. Keep up the good ball playin' boys.

We are sorry to hear that Nick Dittlinger of the Burr Bench was injured in an automobile accident. Everyone wishes him a speedy recovery.

Buy-Lines

By
DICK ROSNER

Irene Agoras was married June 12 to Ermal E. Harpstrite at the St. Margarets' of Scotland Catholic Church in south St. Louis. The bride wore a white waltz-length gown of nylon net over summer satin. The attending bridesmaids were attired in soft-colored gowns of pink, yellow, and blue, in the style of the ballerina.

In the afternoon a reception was held at Hempleman Hall in St. Louis, and from there the couple left for a honeymoon stay at Kentucky Lake in, of course, Kentucky. Irene is secretary to W. J. Gamewell, while the groom is employed as a salesman for the G. S. Suppiger Company here in St. Louis. Many happy returns to you and yours, Irene.

John McDonald, whose boxer "Fritz" took two firsts in the MAC dog show at the picnic, had this to say about his protege, . . . "AWR" . . . unquote.

Off for the wild west and Eugene, Oregon, are Willis and Joyce Smith, husband and wife team here at MAC. The Smiths are driving out, with scheduled stops at Denver, Yellowstone Park, and the "Painted Desert" in Arizona. Ultimate goal is a dairy farm in Oregon, which has (says Joyce) lots of bear, deer, trout, and cougars.

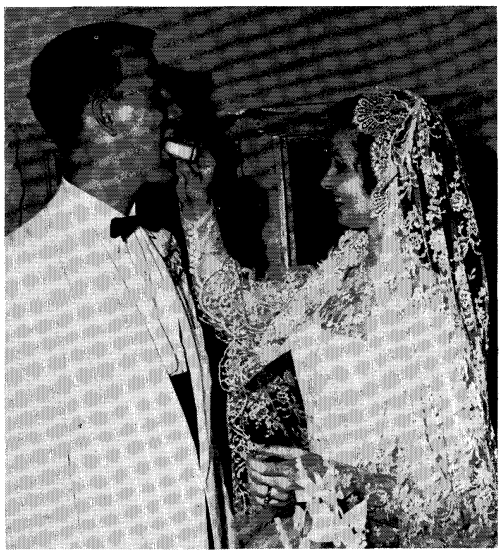
An expression of deepest sympathy is hereby extended to Don Stukenbroeker, whose father passed away in June.

Fiscal Findings

By
HELEN SCHWARTZ

The new car bug has bitten quite a few in Accounts Payable—or is it their husbands. Mary Helen Bevirt is sporting a Plymouth; and Millie Oberle is driving an Oldsmobile. Not too long ago Madeline Bahr got an Oldsmobile Holiday, and Ruth Edwards, a Mercury convertible.

Rose Mary Hoffman, Cost Control, and Howard Woodcock, a former MAC employee were married June 19 at 10 o'clock. Rose Mary received an automatic toaster from her friends.



1953 SKY QUEEN WEDS . . . Rozann Williams, who recently relinquished the title of Sky Queen, acquired a new title . . . that of Mrs. Norman L. Hancock, when she was married on June 19 at St. Stevens Evangelical Reform Church. After a wedding trip to New Orleans, Rozann will return to M.A.C. where she works as a clerk in the Tooling Department. —Photo by Joe Sexton

Sub-Contracts

By
BETTY GLOVER

Congratulations to our girls who won the softball game at the annual picnic. The only one injured was Lavern Wisehart who is wearing a bandage on one finger. We are proud of the Sky Belle from our department, Jean Groene, who was presented with a trophy at the coronation of the Sky Queen. The picnic was made more enjoyable for some of our group who were invited to ride to Blanchette Park in Judy Finley's pretty convertible.

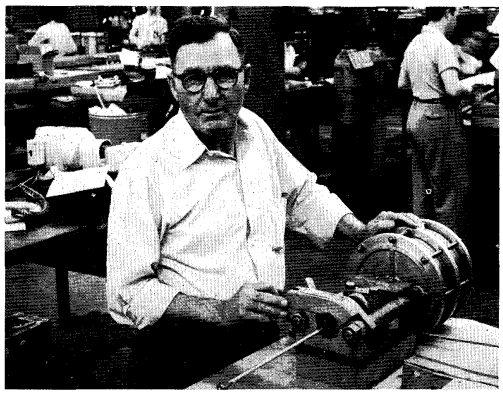
The card we received from Mr. Gray indicated he was enjoying his vacation in the East. Hope he doesn't forget he had a change of address before he left.

It's VC-4 not VF-171

The first photo of the F2H-3 with tip tanks (Page 7, June issue) so intrigued members of the Airscoop staff last month that too scant attention was paid to the worthy members of VC-4 Detachment 38 who were flying the airplanes!

Lt. G. H. Webster, officer in charge of VC-4, was kind enough to write us that Airscoop was in error when it identified the pilots as belonging to VF-171. Our apologies, Lieutenant!

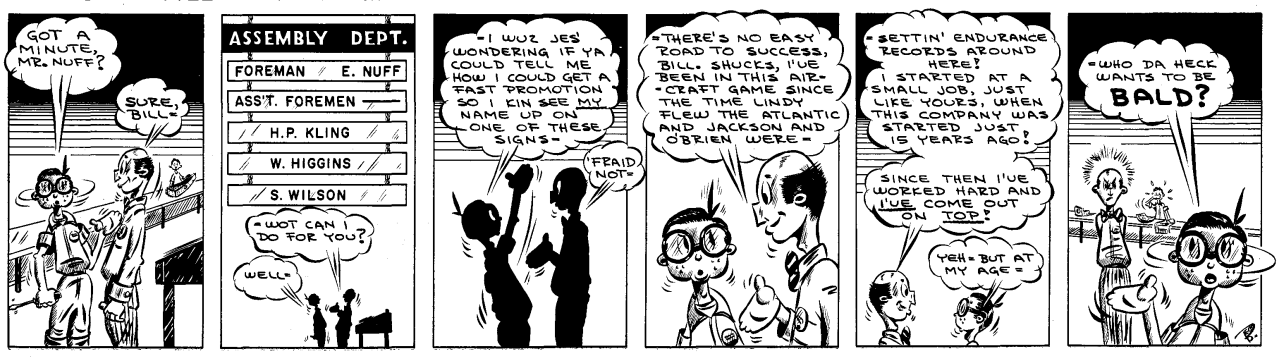
The VC-4 squadron was from the carrier, USS Wasp, and its home station is NAS, Atlantic City, New Jersey.



AN AUTOGRAPH BOOK AND THIS PICTURE were among the souvenirs Russell "Bob" Robinson, mechanic in Tube and Cable, took with him upon his retirement May 31 after five and one-half years at M.A.C. Previously, Bob had been honored at lunch in the cafeteria by some 50 friends in the company and presented with the autograph book of friends' signatures and a billfold containing $50. Above, he is shown working at a pre-setting machine for Ermetto fittings, his last job before retiring from the company.

JET PLANE BILL — BY RAY BECK

A SHINING EXAMPLE

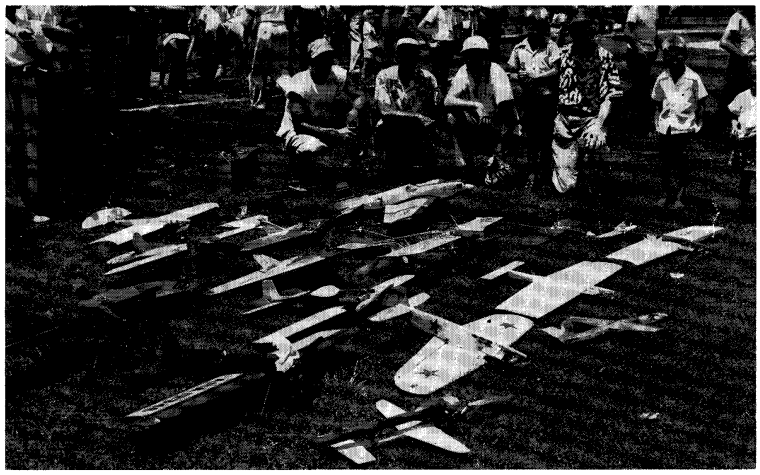


1954 PICNIC!

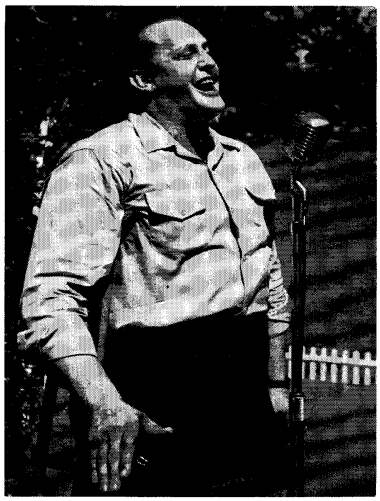
1954 SKY QUEEN Martha Jaspering, a nurse in the Medical Department, who was chosen by popular vote of her 12,000 teammates to reign over them for the coming year. Mr. Mac presided over the coronation which was the highlight of the day's activities. Martha is 5'7½" tall, weighing 130 pounds.

PICNICKERS await the entrance of the 15 Sky Belles on the hill above the natural amphitheatre. It has been roughly estimated that over 20,000 people attended the 15th Annual picnic at Blanchette Park, arriving in over 7,000 cars. Activities provided on the all-day picnic program included swimming, horseshoes, children's games, dog show, model airplane exhibition, tennis exhibition, band concert, stage show, Sky Queen Coronation, men and women's softball games, dancing, and a visit to the 15th Anniversary Exhibit.

READY FOR THE DRAWING, these kids make sure that either Dad or Mom will have a chance to win one of the attendance prizes. The lucky winners were picked from a large drum containing about 5,000 cards.



PROPS AND JETS of every assorted shape and size were represented at the Model Airplane Exhibition. Kneeling behind the planes are three of the Flyers, from left to right: Herman Haynes, Phil Hamm, and Bill Netzeband. Also pictured at right are Gary Covington, Vice President-Airplane Engineering, and three small friends overlooking the design features of the models. Other participants not pictured were: Lowell and Don Stanford, Walter Brownell, and Bill Johnson.



OPENING THE SHOW, Dave Manning of Template Layout sings "Birth of the Blues." After his second number, he was applauded back for an encore. Talented teammates provided five acts for the Stage Show.

ROUND AND ROUND . . the Merry-Go-Round at Blanchette Park was popular with the younger set—at least according to the expressions of these little girls; the mother was not quite as thrilled.

BEST DOG of the show award is presented to El Lo's Dean, a beagle owned and shown by Loy Sellers of Inspection, by William A. Roth, Vice-President-Factory Manager. 30 dogs of all types were exhibited at the Dog Show, 27 of which were pedigreed, and three of mixed breed.

SPORTS REVIEW

Schillings Star on Skates

By
CHARLES DELAHAYE

The cast as well as the audience was restless, for the show was already ten minutes late in getting underway. But a show must wait for the producers, and Bert and Wilma Schilling were paying off a fine that had just been assessed them for speeding.

In passing through Fairmont on their way to Troy, Illinois, where they were staging their show at the Moonlight Roller Rink, they overdid it a little, and the wail of a siren brought them to a halt. After paying the fine they went on to the rink and the show went on . . .

The life of a roller skater is not always this hectic for Bert spends his quieter moments as Staff Engineer in the Airplane Division coordinating engineering on cockpits and equipment. And his wife, Wilma, keeps house for Bert and their 6-year-old son, David.

The Schillings both started skating as a pleasurable pastime in 1944 and while in an advanced class in fancy skating became partners. As it often happens, the partnership soon became one of marriage for Bert and Wilma, and the skating proficiency of both developed.

Pair skating is a precision art, and long practice and competition in State and Tri-State (Kansas, Missouri and Oklahoma) events groomed Bert and Wilma for a tryout at the All-American competition in 1949 at Washington, D. C.

The Schillings placed 6th against competition from all over the United States and Canada.

In 1950, they moved up from the Novice Division into the Intermediate Division and against much stiffer competition took 11th place in the American Meet at Denver.

In 1951, the urge to pass on their skating ability to others by teaching caused the Schillings to turn professional.

For the last three years, Bert and Wilma have been teaching Sunday classes at the Troy Rink. About 250 students were in the classes last year—ranging in age from three and a half years to past 50. The highlight of each year's classes is the "Revue on Skates" put on at the end of each school session in the late spring.

The Production this year was lavish and rivaled those put on at the arena by professionals. Colorful fluorescent costumes were the feature of the show. This year's theme was "Mother Goose Rhymes."

Professional skating gear, like all good professional sport equipment, is of the highest quality and consequently is often expensive. Skates alone run about $90 a pair, and the skating costumes for regular wear can be as elaborate as the skater chooses.

These skates are a far cry from those that we clamped on our old shoes and pushed along the sidewalk or alley when we were young. The shoes are of fine leather and are expertly lasted to give maximum comfort and cause minimum fatigue. The wheels are precision moulded of a new plastic. These wheels are very quiet and have a high friction factor that gives them a good grip on the maple floor—prime requirements for expert figure skating.

Now that David is getting ready for competition and the Schillings will have someone in the family to carry on, Bert and Wilma have decided to retire from their teaching activities. A drawer full of medals and awards and many memories will remain to remind the skating duo of their more active days.

Wilma and Bert Schilling, roller skating dancers and teachers.

Tarheels Victorious In Annual Bowling Tourney

By
HOWARD "VIC" MAHANEY

The Tarheels of the Confederate League emerged victorious with a score of 2914 in the Company Championship Handicap Bowling Tournament on May 16 to be the second winning team the Confederate League has provided for M.A.C. tournaments this year. Previously, the Confederates' Bushwhackers had won the Second Annual Invitational Handicap Tournament.

The roll-off for the Company Championship Handicap Bowling Tournament was held at the Wellston Bowling Lanes as this was a neutral alley in which none of the teams had been bowling this season. The tournament was based on total score plus the team handicap, and the teams bowled across six alleys. Individual league champions were entered into this tournament from six of the McDonnell men's leagues.

The Tarheels are Jim Nangle, Bill Griffin, Henry "Red" Walden, Jim Lyle, and the Captain Howard "Vic" Mahaney. Other teams and their scores are: Bombers, 2908; Speed Jets, 2863; Sportz, 2848; Navigators, 2839; and Jinks, 2790.

High Threes were rolled by the following: Griffin, Tarheels, 534; Boettcher, Bombers, 596; Michie, Speed Jets, 586; Gimmer, 564 and Eash, 561, Sportz; Schulke, Navigators, 546; and Smith, Jinks, 509.

High Single for the day went to Boettcher of the Bombers who rolled a 237 game. Cal Blattner of the Sportz is to be recommended for appearing at the wrong alley and missing out on the first game.

Varsity Tie for 1st with 2 Wins, 1 Loss

By
WALTER WATSON

On May 26th the MAC baseball team lost its first game of the season to Wagner Electric 6 to 5. The game was a see-saw battle all the way, with the MAC nine scoring one run in the first inning. When the first man up, O'Keefe, got a base hit into center field, Cook then bunted, moving O'Keefe to second. After Mueller flyed deep to left, Peters then sent a line drive into center field to score O'Keefe from second.

Wagner came back with two runs in the second and third, and one in the fourth inning to make it 5 to 1, at that point in the game. In the bottom half of the fourth and fifth, the MAC team scored four runs to tie the game up at 5 all. It was the big bat of Little, with a hit in each of the innings to help put them back in the game. Wagner came back with one run in the top half of the fifth to make it 6 to 5. After a scoreless sixth inning the game was called due to darkness.

MAC's third baseman, L. Mueller, was hit by a pitched ball over the left eye in the fifth inning of the game. He was rushed to a doctor where he had three stitches to close the cut over the eye. I am very hapy to report that he is doing fine. In fact, with the help of Mueller's two big hits on the ninth of June, the MAC team downed last year's champs, Monsanto, 8 to 7.

It was the second game of the season that turned into a see-saw battle. At one time in the game the MAC nine was back 5 to 0. Then in the fourth inning they scored two to make it 5 to 2, only to have Monsanto come back with one in the fifth to fatten their lead to 6 to 2. Then it happened, the MAC bats really started ringing. Four base hits in a row, the fourth being a triple by Dartt down the third base line and a long fly ball by Mueller gave the MAC men four runs to make it a new ball game at 6 all.

Once again a determined Monsanto team came back with one run in the sixth inning to make it 7 to 6. In the 7th and 8th the MAC team went down in order, but in the 9th Mueller beat out a slow roller down the third base line. Andert sent a sharp line drive into left, Mueller stopping at second. With no outs, Peters laid down a bunt just inside the third base line, sending Mueller and Andert to second and third respectively. After a very close play at first on Peters' bunt, the big payoff came. With two strikes on him, Hoffman sent a line drive double into left center field scoring the tieing and winnings runs. The final score was 8 to 7 MAC over Monsanto. This win put the MAC team in a tie for first place with two wins and one loss with Wagner Electric.

The games originally scheduled for May 19, June 2, and June 16 all have been rained out and will be re-scheduled.

All classified ads must specify the home address and telephone number of personnel. No advertisements will be accepted advertising side-line businesses of personnel or their families. Advertisements are published free of charge and are restricted to personnel only. Do not phone your classified ads to Airscoop. Write them out and mail to Room 121. Do not use your station or department numbers.

FOR SALE: Baggage carrier for top of car, ideal for vacation or fishing trips, includes special elastic rope, fits any car; like new. M. S. Eichler, Wydown 2-0940, 6514 Geoffry, University City.

FOR SALE: Slide Rule, Log Log Duplex Decitrig; leather case, new $20. Kenneth Owens, 5314a St. Louis Ave., EV 5-5075.

FOR SALE: Two recapped snow tread tires and tubes, used one winter, size 670 x 15, all for $15. EV 5-1495.

FOR SALE: David Bradley Garden tractor with equipment, cost $600, is six months old and used twice, will sell for $350. Can be seen at 3724 Wismer St., or phone WAbash 2-6241M.

FOR SALE: 2-bedroom brick ranch house, spacious living room, full basement, oil heat, breezeway, garage, lot 75' x 100', shade trees, near bus, St. Louis commuter and grade school; immediate possession. 220 Frieda, Kirkwood, TA 1-8130.

FOR SALE: 1953 Mercury, 4-door, radio, heater, overdrive; Winfield 6-8980.

FOR SALE: 20" Emerson Electric Window Fan, 2-speed, has 5-year guarantee, used one season $45. Temple 7-3840, 1165 So. Lafayette, Florissant, Mo.

FOR SALE: 10 volumes, The Encyclopedia of Photography, latest edition, perfect shape, covers photography from A to Z, a bargain at $35. Glennon Doerhoff, 311a Clay Street, St. Charles. Phone RA 4-1215J.

FOR SALE: Boat 12 ft., Thompson Cedar Strip, Fiberglass bottom, 4 ft. deck, 16 H.P. Johnson, "48" model, automatic rewind, $275, see at South Shore Boat Harbor or Jack Gierten, 6119 Jackson, Berkeley, 21.

FOR SALE: Pedigree blonde cocker puppies, six weeks old $25, PR 6-7553 after 5:30.

FOR SALE: Trailer, 2-wheel, Sears metal bed oak rack & tarpaulin, excellent condition, trailer less tires & accessories sells $179, first $150 takes all. Vernon Wallach, Rte 1, Robertson, Wabash 2-2250J.

FOR SALE: Fairbanks-Morse water pump with electric motor and tank A-1, James McMeramy, UN 4-2682.

FOR SALE: Duo-therm oil heater, complete with 175 gal. oil-tank, used one winter, $75.

FOR SALE: Bolens Huski, 4½ Horse power garden tractor, plow, disc, sickle, bar, cultivators, cost $565, new in 1953, used little; first $295 takes it. Vernon Wallach, Rte 1, Robertson, WA 2-2250J.

FOR SALE: Power mower, 24", reel type with Lauson 2½ H.P. engine, one year old, recently sharpened, excellent condition, $60, call EV 5-2563 or see at 8411 Knollwood Dr., Bel-Noir (Normandy).

FOR SALE: Case tractor, 1951 model, has been used about 500 hours, excellent condition of tractor, tires are proof of its care and use; eagle hitch hydraulic pick-up, lights, wheel weights, $575. Call University 4-4288, 701 Charbonier, Florissant.

FOR SALE: 1953 10 H.P. wizard outboard motor, used about 8 hours; good as new, call University 4-4104 after 4:00.

FOR SALE: 1 Spin Dry Easy washer; 1 round tub; Easy Washer in good condition; W. Ellerman, 831 Ballas Rd., Kirkwood, Taylor 1-5423.

FOR SALE: 5-room brick bungalow, ranch style with garage attached, basement walls, floor painted, ceiling finished, furnace room partitioned with knotty pine. CO 1-6155, Velda Village, Normandy.

FOR SALE: Pontiac Station Wagon, 1948, fully equipped with radio, heater, hydromatic, all accessories, new tires and battery, low mileage. M. R. Williams, St. Clair, Mo. St. Clair 235.

FOR SALE: 20" window fan 3-speed, will sell for $20, practically new. Fred Rask, 10424 Anzeiger Drive, Frontenac 24, Mo. WA 1-5529 after 5:00.

FOR SALE: 21-inch reel type power mower with attachment for riding. Briggs Stratton engine, excellent condition. Underhill 7-3952.

FOR SALE: 8mm movie camera with case and telephoto. Bell & Howell roll-film type. H. P. Schoenky, 125 E. Maple, Kirkwood. Taylor 2-0293.

FOR SALE: Coldspot refrigerator, about 8 cubic feet capacity, in good condition. H. P. Schoenky, 125 E. Maple, Kirkwood, Taylor 2-0293.

FOR SALE: Car radio, push button, $15; A-1 Tux coat and vest $5; 30-gallon hot water tank $2. Window fan, new condition $20; Oscillating fan A-1 shape, Delco, $8.50; baby shoes, new, 50c a pair, sizes 2, 3 and 4; motor, ¾ hp, $18, a dandy. Frankie Majeski, EV 1-3230.

FOR SALE: 1941 Plymouth, 2 door, new tires, good motor, radio, heater, seat covers; make offer. CO 1-1535.

FOR SALE: Two 15x7.60 Dayton tires, 80%, $25; four 15x7.60 new Firestone tubes, $20; new 16 gauge Winchester Double Shotgun, a boxes of shells, $85; Ithaca 12 gauge pump shotgun, like new, canvas case, $75; Pat. 3711A Meramec. FL 1-6477.

FOR SALE: Window fan, 12", 2 speed, reversible; used only one summer, almost new; a steal for only $15. G. Rogers, 9540 Parkland, St. Louis 17, WO 1-0008.

FOR SALE: Apartment size washing machine, almost new; also used gas conversion burner. WA 2-1313W before 3 p.m.

FOR SALE: 1½ m.p. outboard motor, Johnson Sea Horse NO38, 360 degree turn, good condition, fine for trolling; also Eureka upright vacuum cleaner plus attachments, good condition, 10659 Veronica Ct., WI 6-6858.

FOR SALE: Sunlight speed flash unit, complete with power pack, strobe light, carrying case. M. R. Williams, St. Clair, Mo. St. Clair 235.

FOR SALE: 8 Bendix automatic washers, 1 Bendix dryer, 3 Chicago dryers, 1 Apex ironer, 1 Hotpoint automatic washer. One piece or the works. Two hot water heaters, M. R. Williams, St. Clair, Mo. St. Clair 235.

FOR SALE: Lot 109x400 on west side of Lindbergh, two miles south of Rock Road. Residential, shade trees, priced to sell. EVergreen 3-8265.

FOR SALE: Fans, 20", short pedestal, guaranteed, $25. Also window fans. Sharron Molos. Parkview 1-6275.

FOR SALE: Dark mahogany secretary desk, bed, chest of drawers; Schwinn Panther "Iris" bicycle, 26"; boys' bicycle, 20". 10441 Ash Brook Drive, Bissell Hills 15, Mo. Un 7-5243.

FOR SALE OR SWAP: General Electric "Stratoliner" electric range, triple oven, 40 inch, deep well cooker; used four years; Corey portable dishwasher, used one year; make offer. Box 167, Herculaneum, Mo. J. B. Breazeale, Grover 9-5713.

FOR SALE OR SWAP: Beagle, 2 year old male, good rabbit dog, $25 Jim Waters, 1211 Westover, PA 5-6173.

FOR SALE OR SWAP: 4 burner gas stove; 4 wheel trailer; air compressor; hand lawn mower. 10035 Midland. WA 2-5836W.

FOR SALE OR SWAP: Lucas foglights, 12 volts, for Jaguar or M.G., brand new from Birmingham, Eng., $25, or swan for good revolver, Mel Blitzing, GE 6-6040.

SWAP: Bowling ball for equal value in woodworking tools, VI 7-5581J.

LOST: In parking lot, a red folder of photographs, please call Adah Kirkpatrick at WA 2-4078 after 5 p.m.

FOR RENT: 5 room bungalow, unfurnished, utilities furnished, garage in basement, $25 per month. 4222 Carson Rd., WIN 6-8850 after 6:30 p.m.

FOR RENT: Bachelor apartment, equipped with 4 single beds, large closets, private bath with shower, continuous hot water, fire place, cool spacious lawn, transportation at door, 10035 Midland, WA 2-5836W.

FOR RENT: 7-room house, ½ acre, furnished except linen and utensils, gas heat, located in Ferguson Fields, available about August 15, call Victor 7-1363J.

FOR RENT: Cabin for rent, on beautiful Lake of the Ozarks, by day or by week, completely modern, hot and cold water, private dock and boat, good swimming and fishing, an ideal spot for a vacation. N. A. Myers, Win. 6-2261.

WANTED: Water pump for cistern to household pressure system. TH 5-3264.

WANTED: Lot or 4 or 5 room house in or around Baldwin or Ellisville. Frank J. Stafford, 9635 Lackland Rd., Overland.

WANTED: Ride to M.A.C.; moving to 715 Limit, between Eastgate and Westgate—1 block north of Delmar; 8:00-4:30. Sharron Molos, PA 1-6275.

MISCELLANEOUS: Learn to fly, instructions and rentals by the hour or day, Luscombe 8A. St. Charles Airport. J. G. Byrnes.

MISCELLANEOUS: Upholstering work wanted, all types; give your overstuffed furniture a new look, have your cushions refilled; expert workmanship, all work guaranteed, free estimates, call Johnnie Temple 7-3881.

Hash-Orf Nuptials

Wedding bells rang for Paul Hash and Gladys Orf on May 15 at the Assumption Church in O'Fallon. Paul is Budget Coordinator in the Contracts Division.