AIR TRAILS

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MEET AMERICA'S AEROBATIC CHAMP

Your Job in Aviation

Aircraft Dispatcher

There are many interesting jobs in aviation besides piloting; here's one that requires special skill

■ Joe Doyle thumbs through a thick mimeographed book bearing the imposing title, "Flight Operations Policy and Procedure Manual." He reads scores of regulations specifying how he shall perform his job. They tell him in detail what to do from the time he walks onto the job until he checks out for home eight hours later. Significantly, at the bottom of each page he sees repeatedly this all-important alternative: "Nothing in this manual replaces the exercise of good judgment on the firing line."

You seldom hear about Joe's job, never about Joe as a person. His is one of the most responsible posts in airline operation, either non-scheduled or scheduled. He is an aircraft dispatcher. He qualified by attending a C.A.A. approved school, then passing the most impersonal examination ever contrived by experienced examiners. Machines "read" his paper. Either he passed by a set mathematical percentage, or he failed. No ifs or buts.

Let's say Joe is a TWA dispatcher, and glance briefly at his responsibilities. Not until Joe signs a release may any flight take off. With the captain, he must agree the flight can be made safely in accordance with company and Civil Air Regulations. He specifies the amount of fuel to be carried. He may halt a flight when he considers the weather unsatisfactory, change the clearance during flight, inform the captain of changing conditions, track down an airplane should the captain not report on schedule. In a nutshell, Joe is the senior operations department representative in his flight dispatch zone, and he conducts all flight operations.

Joe hovers constantly, like a setting hen, over four or five flights. He knows exactly where each plane is located, give or take a few miles, and can tell you within a mile or two its ground speed. He may work days, early night or graveyard. You see him slide into his seat at 1 a.m. Quickly he absorbs reports, and sets out to match his judgment with changing weather conditions over a wide area of the United States. But Joe doesn't base his decisions on guesswork.

Let's glance over his shoulder for a closer view. Flight #94, destination Chicago, is due out of Los Angeles International Airport at eight o'clock. While Joe keeps an eye on other flights within his sector, he checks frequently on winds and rains, as well as overall weather. Shortly after five, the company's weather man hands him a map, prepared from the U.S. Weather Bureau's reports. At seven, the weather department prepares a forecast based upon the map. At seven, too, in walks the plane's captain. Joe awakened him an hour earlier. That's part of his responsibility, too—getting the crew on the job.

Joe and the captain step into the adjoining weather office. Tail winds this morning, 60 miles an hour to Denver, 50 between Denver and Chicago. Joe gives the captain a choice of three routes—direct, the regular airway, north to Denver and Omaha. The captain chooses the Denver route today, and elects to fly at 19,000 feet. That altitude, he knows, will keep the Constellation above three separated layers of intervening clouds, smooth sailing all the way. The weather man draws the altitude in on the profile map.

Now the pair study the flight plan. Both sign, and Joe keeps a copy. The captain must report at several check points. Joe fills in the copy as word comes in, noting especially the time at each point. He wants to know whether the flight is ahead of or behind schedule, and why. Winds might change to the north, and that could mean an intermediate landing for extra fuel.

Also routine, Joe sends the captain new forecasts during flight, especially (*Continued on page* 59)

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any changes at the terminal. Perhaps it shifts from clear to a squall line, with thunderstorms, moderate to heavy rain, ceiling and visibility reduced. The pilot wants to know those changes at the earliest moment. He may find it necessary to make flight changes on his own authority. Too, when he passes Denver, dispatch control passes to Kansas City. Joe's responsibility ceases at Longitude 39. Joe got Flight #94 to Denver. Now he can turn his attention to other problems.

Here's another. Flight #9, originating in Chicago, approaches Albuquerque on a fine winter day. Smooth sailing, until the left fuel injection pump on No. 1 engine of another Connie fails. For 35 minutes, the pilot flies toward Albuquerque with the ailing engine feathered. Thirty-three passengers aboard today, some bound for Phoenix, others for Los Angeles and San Francisco. Do we ground the plane? What becomes of the passengers? A score of problems descend upon someone's broad shoulders immediately. During the 35 minutes of the feathered flight, that someone must solve them. That's Joe.

Joe hits the telephone, starts dictating messages. Cancel Flight #9, because changing the pump is a four-hour job. Can't ask passengers to wait, if there's any other way to keep them moving westward. Notify stations where the flight would stop to assign passengers and mail to other planes. Ask Kansas City to notify following Flight #97 to stop at Albuquerque for 20 passengers. Because the stop makes #97 late, ask Albuquerque to put on dinners, ordinarily supplied at Phoenix. Order extra fuel for #97 at Albuquerque. Arrange a substitute crew for #97's eastbound trip tomorrow because she will be late in reaching L.A. Place some passengers aboard a following DC-3 flight. Keep everything moving smoothly, and when the feathered engine is ticking once more release the Connie, and assign a new flight number.

All done, and now the scene shifts to California and another day. Rain doesn't bother Joe. He knows the airliners can land safely in a downpour. But ice, fog and high winds are a different matter. At the moment a west-bound plane is three hours out of San Francisco. Weather isn't too good now, promises to be foul before the estimated time of arrival, clear by the time plane will land. You don't take chances, though. Joe gets off a message to the pilot, enjoying serene skies over Wyoming:

"SFO TER FCST 1730-1830 OP 20 OVC IBRKN RW-3W30 G35 MDT COLD FT XPCTD TO BE SAC AT 1800P. PIREPS MDT ICG ABV 119MSL VCNTY RBL 1400P B-26 FYI HAIL REPORTED ALA AT 530P"

As the pilot reads Joe's advice, he knows the front will have blown a hundred miles east to Sacramento by the time he's due in San Francisco, he may encounter moderate icing above 11,900 feet over Red Bluff, that hail will be falling at Alameda before his arrival. So he plans alternate landings at Fresno or Lancaster. He continues right along his plotted path. Whether he lands at San Francisco is not part of our story. Point is, Joe told him all he needed to know for a decision. (Actually, the flight landed at S.F.) More, Joe continued to keep the pilot informed about the weather he might expect all along the line.

Joe helped keep that flight on schedule. He's the first to explain that schedules aren't the most important part of airline operations. "Safety—that comes first," he emphasizes. That's exactly why Joe keeps a close watch on every flight in the air. If a plane's report at some check point is 20 minutes overdue, Joe swings into swift action. He clears all phone circuits. He asks adjoining company divisions and

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CAA stations to try for contacts by radio. If no answering signal arrives, stating the plane's position, Joe really digs in.

He contacts all railroad stations along the line, to ask whether some agent has heard a plane's engine. Various agencies try all radio frequencies. Police departments, sheriffs, farmers are alerted. Forest Service spotters listen in, scan mountainsides. If the worst has happened and an accident is reported, Joe calls for help, plenty and fast, and as quickly as man can move, by plane or muleback, parties bearing food and medicines move toward the scene. . . .

As a watchdog of the airlines, Joe could use two mouths for speaking and four hands to wield pencils and telephones. Sometimes he works alone, again paired with another dispatcher, sometimes three labor together. It depends upon the station and volume of traffic. It's an exciting job, though, for upon his decisions depends the safety of thousands of passengers and many tons of express and mail.

Time was when Joe wasn't swift and sure in his decisions. He had to start slowly, and grow with the job.

CAA authorities say candidates for certification should attend the aircraft dispatcher CAA approved school. That's what Joe did. Among other things, he studied the CAA book on meteorology and U.S. Weather Bureau Bulletin "N," covering weather and how to cope with same. On recommendation of his school, CAA permitted Joe to take the dispatcher's examination five years ago. He read Weather Bureau symbols for weather, took an oral examination covering simple operations, analyzed "flight" weather on the basis of maps. And he took a comprehensive "multiple choice" written examination.

Sample: Circulation of wind in a high pressure area is clockwise toward the center, counter-clockwise toward the center, clockwise away from or counter-clockwise away from the center?

Sample: At 1800 EST on Mar. 3 SF weather bureau issued the following report: "Ceil. indef, 1500 o-cast, vis. 4 mi. variable, smoke, light rain, Bar press 1002 millibars, dew pt. 54 degrees, temp. 56 degrees, alt. set. 2959. . . ."

Choose one of four answers.

Laboriously, Joe calculated:

"071700E CG SPL W15V ⊕ 4R-K 002/56/54 - 6/959/CIG VRBL 12to18 BRKS in OVC. . . ."

Icing exists in what kind of clouds? Select one in four. Fog is retarded by which—drizzle, sun, rain or clouds?

More questions: Wind blows in a magnetic direction, a corrected magnetic direction or a true direction? To cover a section chart, east to west, you measure at the mid-point, destination, point of departure, or any point?

All these queries pointed toward one answer: Was Joe qualified to begin practicing • getting airplanes from here to there while sitting in a comfortable office perhaps hundreds of miles from the planes carrying the nation's air loads? He began to find out a few weeks later after the mails brought him an important bit of paper saying he had gotten by the machines that graded his answers by a score of 88. He was 18 points up on the passing mark. That meant he was better than passable, and a chief dispatcher considered him worth trying out as an assistant.

Through continued study and daily experience, gradually Joe became an expert. In winter he knows intuitively the best flight altitudes to avoid icing, and so advises pilots. Quick calculations tell him when fuel may be low, and a dozen quick phone calls to other lines permit him to get his man down first out of a stack. Finally he glances at the local weather report: "Ceiling 500, visibility ½ mile."

Come on in, and sign out. Joe's job is done for this flight.