

Chats by the Weather Man.

Wed. Jan. 12.

PROGRAM.....

RELEASE.....

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ANNOUNCEMENT: When you received that New Year's greeting, stamped AIR MAIL, did you wonder about the story of thrills and danger that may lay behind it? A story as fascinating as those of the Pony Express of early days. The U.S. Weather Bureau is doing everything possible to help make the air ways safer. In tonight's Chat, the Weather Man will tell you about it.

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We were down at the flying field -- where the earth meets the sky -- a friend and I. Waiting for the great mail plane to come in from the West. It was due at 12:01. It was then 11:50. We had 11 minutes to wait.

Out on the field, several planes were being put in trim for their adventurous journeys in the sky. There they stood -- impatient -- their long, blunt snouts pointing off into the air. They seemed nervous -- eager -- impatient to be off. High above us came the insistent drone of a couple of planes darting through the clouds as if playing "hide and seek". Suddenly, upon our left, there broke out a heavy, stuttering roar. Another big, grey plane was ready to go. It's propellor whirred in a steel-blue circle. Now the machine is off. Gathering speed, it skips across the frozen ground. Now and then it takes light, graceful leaps into the air. Now it glides up at an angle -- and doesn't come down. Another 5 minutes, and it was a vague, white "T" in the sky, off toward the West horizon.

My friend turned to me. "Craig made a pretty take-off, didn't he?" "Should make Drake by sundown -- if a storm doesn't come up and force him down, as it did last time".

"He'll find it fair all the way", I said. "No storms today, Dave."

"How do you know?" my friend asked, surprised. "It's 500 miles to Drake. He might run into a cloud bank or a blizzard 200 miles out."

"Not today", said I. "At least, the chances are 10 to 1, he won't."

"Sure? -- it's fair here, all right", said Dave. "But how in Sam Hill can you tell whether it's good weather in Drake -- and in all the places between here and Drake?" Dave asked me.

"The Bureau's special weather service for commercial aviation takes care of that", I replied. We still had 6 minutes before the mail plane was due. So we found a couple of boxes and sat down.

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"First", said I, "I'd better tell you something about the 12 mail routes. Really, there are 11 now operating, but the Philadelphia-Washington-Norfolk mail planes will resume operations soon. Now let's count off the other 11 air routes now in operation: New York to San Francisco, through important cities along the line, that's one, -- New York to Boston (through Hartford), -- Atlanta to Miami (by way of Jacksonville and Tampa), -- Detroit to Grand Rapids (through Lansing), -- Chicago to St. Louis (by way of Springfield and Peoria), -- Chicago to Dallas (through Moline, Rock Island, Davenport, St. Joseph, Kansas City, Wichita, Oklahoma City, Dallas, and Ft. Worth), -- Chicago to Minneapolis and St. Paul (through Milwaukee and La Crosse), -- Cheyenne to Pueblo (through Denver), -- Salt Lake City to Pasco (Washington), (through Boise), -- Salt Lake City to Los Angeles (through Las Vegas), and Seattle to Los Angeles (through Portland, Medford, Sacramento, San Francisco, and Fresno). That's 11, isn't it?"

"Have you ever stopped to think what it means to get a letter stamped air mail? For that 8 cents per-ounce-per zone, postage, you buy courage. Believe me, it takes skill and courage to carry the mail through the air. Courage as great as the boys who carried the mail on ponies through Indian Country in the early days, had. On a day like this: - bright sunshine, - a blue sky overhead, it's nice going. It's the blizzards, high winds and bad storms that try the aviators mettle. Yet the mail must go, fair or foul. Many of Uncle Sam's "postmen of the air" fly through the inky blackness of night and often times under the most hazardous and unpleasant weather conditions.

"Pilots pay the closest attention to visibility and what they call the 'ceiling', that is, the highest altitude before they reach the clouds. For instance, take Craig who just put off. He knew what the weather is like around here just as well as you do. He looked pretty confident, didn't he? Well, the weather reports he got this morning, before he took off, helped to make him confident. They informed him that the visibility is good today, that there'll be practically no cloud hazard, and that only a slight wind is blowing. Airmen pay special heed to the height of low clouds. They're interested in wind velocity both on the surface and in the upper stratus of air. They don't pay so much attention to rainfall -- unless the clouds are low and heavy. Snow fall is of much importance to them because it may increase the load of the plane and thus cause accidents. Of course, the aviator taking a short hop isn't so particular about weather conditions. But when a chap's going on a long cross-country flight he wants to know as much as possible about weather conditions all along the "road". Sometimes it means life and death to him.

Dave broke in. "As you say, it's easy to see what the weather is here -- but how do you know what it's like 1000 or 5000 feet in the air -- or between here and a city 500 or 600 miles away? That's what I'd want to know if I were flying with valuable mail."

"Naturally", I answered. "And that's just where the Weather Bureau's new meteoriological service for commercial aviation steps in. About a year ago, Congress passed what is known as 'The Air Commerce Act of 1926'. The

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purpose of this Act is 'to encourage and regulate the use of aircraft in commerce'. The service is new and not completely under way even yet. But already, it's giving 'weather reports, forecasts, warnings, and advices' of great value in 'promoting the safety and efficiency of the air navigation in the United States and above the high seas'. The work of the service really consists of observing, measuring, and investigating conditions of the atmosphere -- advising upon the suitability of proposed air routes as regards their meteorological conditions -- and establishing and operating weather offices and stations.

"That's a bit highbrow for me", said Dave.

"Well, I'll say the thing more simply, then", I answered. "A lot has been said about what should be done to protect the airways and aircraft. This new service gets down to business and actually does things. For example, it makes daily reports of the condition of both the surface and upper air. It makes short-range forecasts giving the outlook for from 1 to 5 or 6 hours in advance. The length of the period depends on how long a flight is going to last. And then it forecasts the weather for the next 12 to 24 hours. Now there are 36 stations in the United States that make daily observations of upper air conditions. These are made with the aid of balloons and other equipment and are especially valuable to aviators. In addition to these, the regular weather offices throughout the country -- over 200 of them -- make daily observations and records of the surface weather conditions. These are also used by airmen. A number of both classes of stations are located on established air routes. Practically all of these stations make two observations a day. A few make only one observation".

"What do you mean by OBSERVATION?" asked Dave at this point.

"Well", said I, "We mean an investigation of the condition of the air, - the weather, - really. Our men find out the speed and direction of the wind -- the temperature -- the precipitation (which is rain, sleet, or snow fall) -- the kind and the height of clouds in the sky -- visibility (or how far and how well you can see) -- fog, haze or smoke in the air -- thunderstorms -- squalls -- blizzards -- vapor, etc. These conditions are noted at about the same time each day, -- generally early in the morning, - by all the stations. Each station then telegraphs the conditions to other stations. All this information shown on weather maps makes it possible for an airman to read at a glance the air conditions he is apt to meet on his flight -- whether it is a long or a short one. Gives him a bird's eye view of the air and the weather -- see? As I said before, most of the stations make these observations twice a day".

"Can these forecasts always be trusted?" Dave asked.

"You can always trust that they are made on the basis of the best knowledge of expert weathermen", I replied. On the whole, weather forecasts made by Bureau offices are about 80 to 90 per cent verified. Our responsibility is over when we make the best observations we can and then release them to

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the public. The air pilots get our observations in the morning around 9 o'clock, say. It is not our duty as weather men to advise them whether they should fly or not on a particular day. It is our duty to let them know what the air condition will be here, and where they are going".

"Well", said Dave, "That seems to be a mighty big assignment in itself".

"It is indeed", said I. "But here comes our mail plane. I'd know that plane's song in a thousand. Guess I'll have to finish telling you how we make the observations some other time. There's a lot more to say".

And then we went down to meet the pilot of the big mail plane as he landed.

And so, good night.

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ANNOUNCEMENT: This concludes our first talk on the new commercial aviation weather service. The talk will be continued some night soon.

National Oceanic and Atmospheric Administration

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