



MOLLIE TRIES AGAIN

Only three weeks after the death of the first two jackass penguins (no joke!) ever hatched in the United States, Mollie and Moe, clowning immigrants at the National Zoological Park in Washington from an island off South Africa, started work on another pair of eggs. Here Mollie is taking her turn incubating the eggs. Now near the end of the 40-day incubation period, she is doubtless listening anxiously for the sound of pecking from inside the shell.

AERONAUTICS—CONSERVATION

Germany Could Not Store Helium, Authorities Hold

Diffusion of Gas Through the Cells Makes Necessary 100 Per Cent Replacement During Year; Won't Rob Us

IT WOULD be virtually impossible for Germany to build up a secret supply of helium for military airship use under the terms of the Helium Act of 1937 enabling the sale of the light, buoyant gas to foreign companies for commercial purposes.

This is the considered belief of experienced American authorities, who because of the present controversy in government circles, must remain anonymous.

The request for the purchase of 17,900,000 cubic feet of helium gas for the use of the new German zeppelin, the LZ-130, is not excessive, these experts declare.

Here is how this giant figure breaks

down in airship operating practice:

The capacity of the LZ-130 is 7,063,000 cubic feet. For 95 per cent. inflation at take-off, it will need about 6,700,000 cubic feet.

On the Akron and Macon, U. S. Navy dirigibles, it was found that the diffusion of helium through the gas cells and other losses amounted to about 100 per cent. during a year's time. While naval airship operation differs in some respects from commercial oceanic operation, such figures represent the best estimate that can today be made of such needs. In summary, a year's operation of the LZ-130 will require an additional 6,700,000 cubic feet of gas.

This amount, however, will not all

be sent to Germany, if the export license is granted. Half of it will be used at Lakehurst, N. J., U. S. naval airship station and American terminus for the transatlantic line. There it will be under the control of the U. S. Navy. Moreover, the German half of this replenishing gas need not be delivered all at one time, it is pointed out. It could be sent over, month by month, in small amounts sufficient only for immediate needs.

After primary inflation and the estimate of replenishment needs for a year are considered, only 4,500,000 cubic feet of gas needs to be accounted for. This amount is a reasonable estimate of the emergency needs of an airship service.

A single large gas cell on the LZ-130 may hold nearly as much as a million cubic feet. An accident, causing severe leakage in such a cell, would involve a major loss which could only be replenished from emergency supplies. Half of this emergency 4,500,000 cubic feet, it is pointed out also, would likewise be in the United States.

It would be only a matter of common sense, the experts assert, on the part of operators conducting scheduled oceanic airship service to maintain a reserve supply adequate to such contingencies. Some of this supply will always be in transit.

Finally, it should be remembered that the U. S. Navy would have two professional airship observers aboard the LZ-130 during flight who could estimate accurately the needs of the airship at the end of a transatlantic flight and report to American helium authorities.

Another charge disposed of by airship experts for Science Service is that the sale of helium to Germany for commercial purposes is seriously depleting rare American natural resources.

Proved helium resources of the United States would last for several generations even if many airships were built. Helium, it is true, is a rare gas, but its uses are relatively limited. The estimate of the length of time helium resources will last is several times larger than the estimate for American petroleum resources which, even optimistically, are not considered sufficient for more than a few decades.

Now in sight are 25,000,000,000 cubic feet of helium and there are other fields which unquestionably hold additional supplies. Cliffside Field in Potter County, Texas, alone has an estimated 1,800,000,000 cubic feet of helium, enough to last more than 100 years if used at the rate based on the present request of the German Zeppelin company for helium for the LZ-130.

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