

6 MILITARY LOW FLYING
Chairman Dr Jürgen Becker, Germany

THERMICS MAXIMUM HEIGHT FOR BIRDS, MINIMUM FOR JETS.

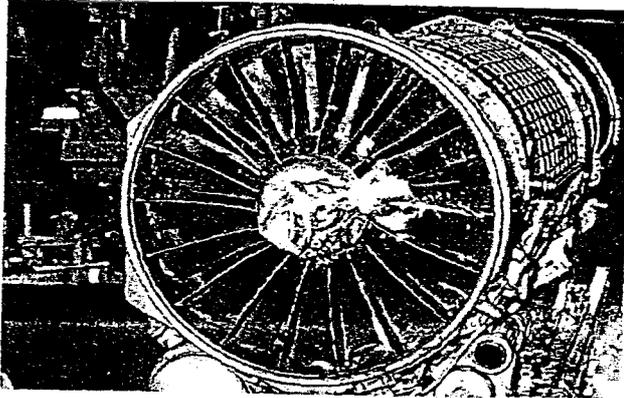
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We are presenting to you here, how we (the pilots of the 15th Group) avoid bird-strike problems in Bardenas Bombing Range, home of hundreds of vultures.

Keywords: Avoidance, Preflight planning, Vulture, Local movements

The Bardenas Bombing Range area is about 100 square kilometers (mostly flat); the highest point being at about 250 ft. The area is surrounded by farms with thousands of sheep, whose carcasses are the main source of nourishment for the birds. The population of vultures is increasing every year in the Bardenas area -- 100% in the last 10 years. That means at least 3,000 birds are flying over this relatively small area.

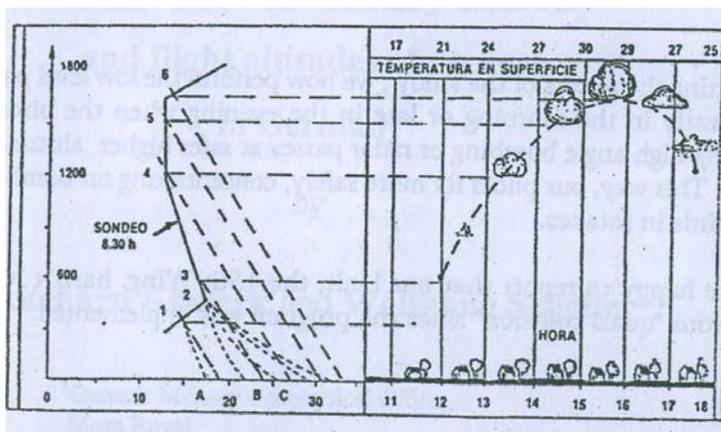
The 15th Wing statistics show us an average of one (1) bird strike per year. It's important to remember that a vulture may weigh up to eight (8) kilograms; therefore, any impact with them will produce a serious damage.



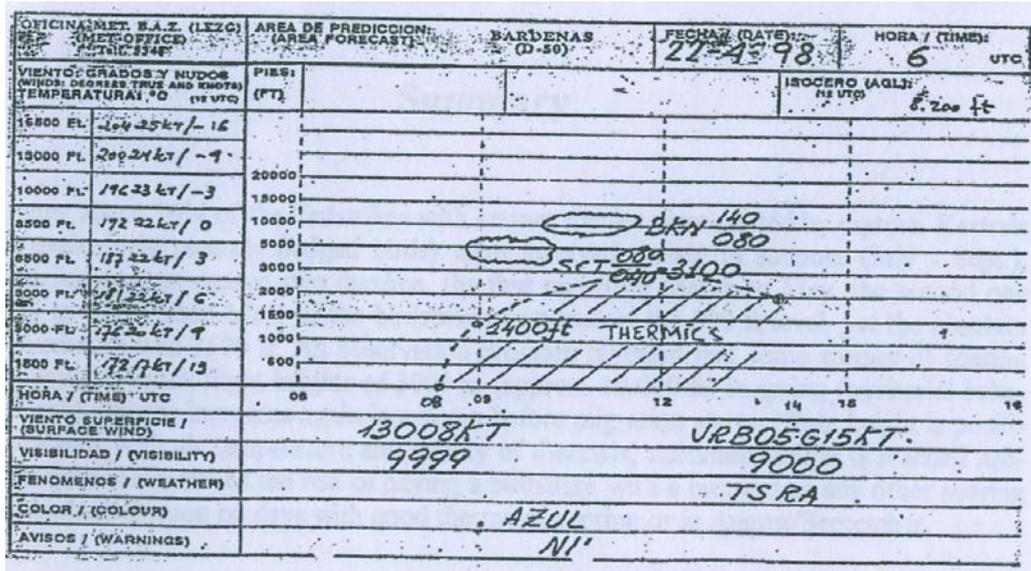
Zaragoza A.B. Flight Safety Office is coping with this problem on two different fronts: First -- trying to modify the birds' habits, mainly by moving the food areas to positions further a-way and by burying the carcasses that are lying close to the range. Second -- avoiding sharing the same piece of sky by adjusting our flight plan in theirs.

THERMICS

Since the surrounding area is quite flat, bird activity starts when the air is hot enough to produce up-currents. An accurate weather forecast can predict not only the hours of bird activity, but also the maximum height of the thermic. (GRAPHIC)



Every morning the Weather Officer studies the temperatures at different altitudes and prepares the morning briefing, including a graphic with the thermic at different hours of the day. Of course, this is theoretic data, which needs to be complemented with the daily observation (hour/altitude) of the birds provided from the air (pilots) and from the ground (range controller).



After eight months of observation of the daily take-off and flight patterns of vultures in the vicinity of the bombing area, the Zaragoza AB. Weather Officer came to the conclusion that 96 % of the birds observed were flying inside the thermic, thus convincing us that the program is reliable.

Based on the results of the study, the Flight Safety Officer suggested to the Base Commander that pilots shouldn't flight below the thermic altitude, adjusting the minimum flight altitude to the vultures' maximum flight altitude.

RESULTS

Respecting the results of the study, we now perform the low level passes and straffing (gun) early in the morning or late in the evening when the birds are on ground; choosing high angle bombing or radar passes at safer higher altitudes during the hot hours. This way, our pilots fly more safely, concentrating on bombs on target rather than birds in intakes.

We are happy to report that our Unit, the 15th Wing, hasn't had any impact or dangerous "quasi collision" since the program was implemented.