

**7 IMPACT ENGINEERING PAPERS**  
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**THE PROBLEMS OF THE VECTOR-CONTROLLED AL-31 F ENGINE  
DAMAGE AND ITS RECONDITIONING AFTER LARGE BIRD INGESTION**

**A.Andreyev, O.Kachevsky, V.Konohkov, V.Chepkin, V.Yakoby**  
**Address of first Author**  
**Lyulka Saturn Inc.**  
**Kasatkin St.**  
**Moscow 129301**  
**Russia**

**Summary**

Presented in the report is a careful study of engine structure damage from -1.1 kg seagull ingestion into the left air intake during the SU37 take off in Anapacity located on the Black sea shore.

The damaged engine operated normally in the whole flight from Anapa to Moscow during 1 hour and 45 minutes. The flight was completed with the standard landing in the Zhukovsky airport.

The given fact demonstrates a high survivability of LP compressor structure and its high gas dynamic stability.

The report shows the advantage of modular design due to which it has been possible to recover the engine in the short period of time and to put it back to operation. Shown here is the technique of reconditioning in service center for AL-31F and its modifications.