

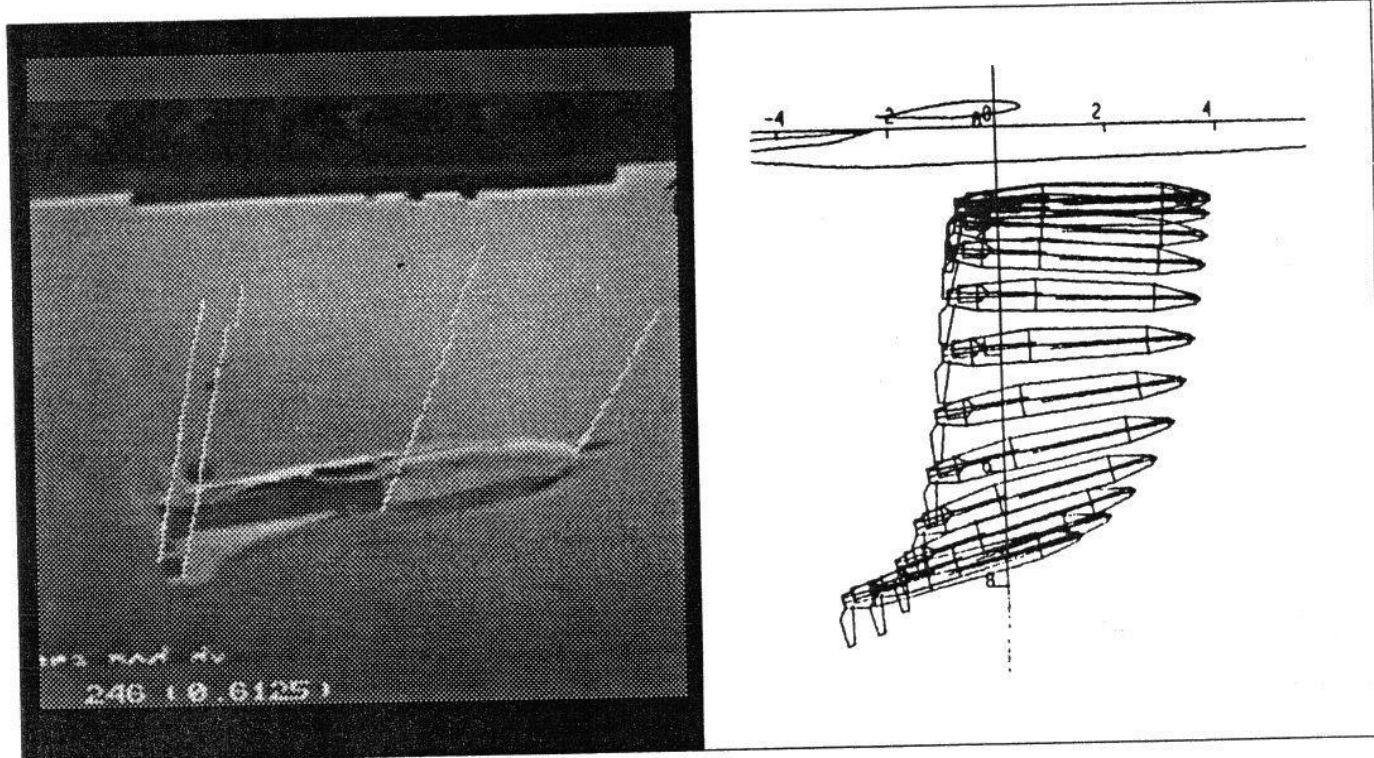
AUTOMATIC ANALYSIS OF IMAGES AT ALENIA FLIGHT TEST

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Summary

Flight testing, since the beginning, used to take advantage of cinecameras, and subsequently of TV cameras, for data acquisition. The advent of new technologies like digital image processing and solid-state TV cameras has allowed, in the last few years, to significantly strengthen the effectiveness and the applicability of image-based flight test analysis. A proper combination of cine and videocameras represents today a suitable solution in many flight test areas, as confirmed by several successful applications. An advanced system for digitizing and automatically analyzing film and TV images has been purchased by Alenia Flight Test, aimed at making more effective the analysis and at developing new flight test techniques based on optical inputs. Initial successful results, obtained in solving different peculiar analysis problems like weapon aiming measurement, safe separation, anti-skid assessment and spacecraft kinematics testing are the subject of this paper.



"Skyhawk" separation from a Tornado aircraft:
example of automatic image analysis