

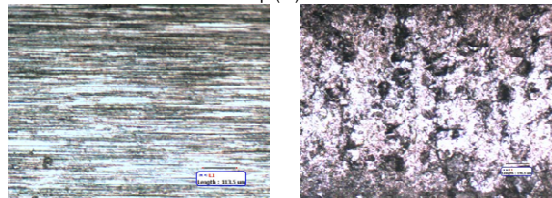
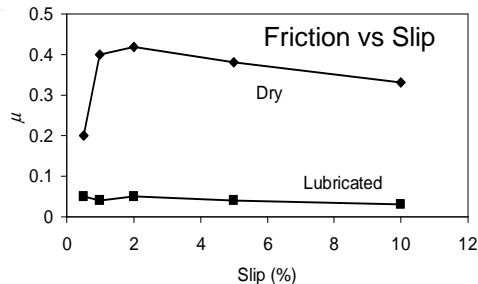
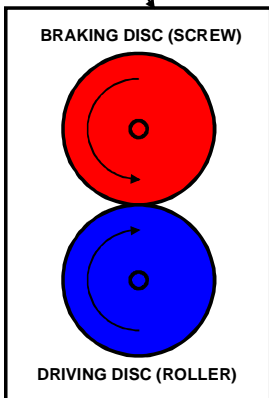
Electro-Mechanical Actuators

Aims of the Work

- Push for EMAs to replace hydraulic actuation on primary flight controls
- EMAs have many advantages: greater accuracy and speed; weight saving; maintenance reduction etc.
- Roller screw mechanism selected
- Aim is to test treatments and coatings options for the screw thread and rollers to give low friction and wear
- Work part of EU FP6 Integrated Project - MOET



ENVIRONMENT CHAMBER
(PACKED WITH GREASE FOR
LUBRICATED TESTS)



Outcomes

- Twin disc testing used to characterise potential coatings/treatments
- Wear mechanisms and rates determined
- Friction measured
- Top five solutions taken forward for full scale testing