GENERAL AVIATION

Aerotek launches

composite utility
BY MIKE GAINES
IN JOHANNESBURG

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erotek, South Africa's Aero-
nautical Systems Technol-
ogy division of the state-owned
Council for Scientific and Indus-
trial Research, is to launch an
all-composite lightweight two-
seat aircraft, called the Hum-
mingbird. The aircraft is aimed
at the surveillance/police/game-
ranger market usually filled by
light helicopters.
Peter Jacobs, senior manager
of Aerotek's design office, says
the aircraft should make its

Textron ALF502

cracks affect

Challenger 600
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extron Lycoming says
that ALF502 turbofans
powering early-model Cana-
dair Challenger business jets
will be affected by its pro-
gramme to retire prematurely
cracking engine discs (Flight
International, 1-7 April).
The twin ALF502L-pow-
ered Challenger 600 was cer-
tificated in 1980 and was
superseded by the General
Electric CF34-powered Chal-
lenger 601 in 1982, after 83
aircraft had been built.

The engine is similar to
the lower-rated ALF502R
which powers British Aero-
space 146 four-jet regional
airliners and which is most
affected by the disc "draw-
down" programme.
Lycoming says that the
low engine utilisation typical
of a business jet, about 300
cycles a year, means the
ALF502Ls will be among the
last to be affected by its
programme to replace high-
pressure compressor discs at
between 10,000 and 12,000
cycles and high-pressure tur-
bine second-stage discs at
9,000 cycles. •

maiden flight in about four
months' lime. "The cockpit has
the same level of visibility as a
helicopter," says Jacobs, "but it
will be much cheaper to buy and
run." The take-off and landing
roll are claimed to be less than
100m, which is sufficient for
most jobs, he says.
The Hummingbird is powered
by a 67kW (90hp) Norton rotary
engine mounted over the trailing
edge of the. shoulder-wing and
driving a pusher propeller. The
llm-span aircraft is 6.5m long
and weighs 340kg empty and
620kg all up. The design cruise
speed is lOOkt (185km/h), but it
will be able to loiter at 41kt with
10° of flap, for an endurance of
4h. Flaps-down stall speed is
projected as 30kt.
The aircraft can be de-rigged
for trailer transport. Jacobs sees
a market for the side-by-side
two-seater with automobile
breakdown patrols, police, pipe-
line and electricity-line agencies
and game rangers. •

US ENGINE FLIGHT-TESTED ON WILGA
PZL's North American marketing arm, Melex USA, is flight-testing the Polish manufacturer's Wilga utility aircraft re-engined with a Continen-tal 10-550 piston engine in place of the original lvchenko radial. The engine change is designed to increase the aircraft's appeal to US law-enforcement customers. The 10-550 is 45kg lighter and some 40kW (54hp) more powerful than the radial engine and the re-engined aircraft has a shorter take-off run, faster cruise, better centre-of-gravity range and uses less fuel. At $98,000, the aircraft is about $12,000 more expensive than the basic Wilga.

Australia rejects Mu-2 safety advice A

ustralia's Civil Aviation Au-
thority (ACAA) has de-
clined to implement the main
recommendations from a Bureau
of Air Safety Investigation
(BASI) report implicating ice
problems with the Mitsubishi
Mu-2 in two Australian acci-
dents (Flight International 19-25
February).

Dutch agree to use of

surveillance ultra-light
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he Dutch aviation authori-
ties have approved the use
of ultra-lights by the police for
surveillance following two years
of test flying. It is believed to be'
the first such professional use of
ultra-lights in Europe.
Police in the city of Helmond
in the south of the country have
used a modified German Sky-
Walker machine since 1989 un-
dertaking observa-
tion, traffic duties,
the control of
public events,
search flights and
directing firefight-
ers. Much of the
work has been
undertaken in the
large agricultural
areas which sur-
round the city.

The Helmond police used the
aircraft to supplement the air-
craft and helicopters of the Di-
enst Luchtvaart Rijkpolitie (the
police air service). In 1991, the
Sky-Walker accumulated about
250 flying hours and the plan is
to double the usage this year.
The Dutch authorities recom-
mend that a very light aircraft
should replace the ultra-light. •

SkyWalker joins Dutch police after two years' testing

The main recommendations
— withdrawal of certification for
flight in known icing pending
further certification flight-
testing; introduction of an ab-
normal trim-position warning
system; investigation of stall-
warning adequacy in icing con-
ditions; and improved ice
detection and stall-warning ice
protection — are rejected.
The recommende d tests
would have amounted to a full
known-icing re-certification for
the type, following BASI's find-
ing that the original Japanese
certification, and a subsequent
US Federal Aviation Administra-
tion special certification review,
had been incomplete.
Without commenting directly
on the BASI findings, the ACAA
response claims: "There has
been no suggestion that, when
the ice-protection systems are
operated correctly, the aircraft
characteristics are other than
satisfactory."
The BASI report, based on
extensive inquiries into domes-
tic and foreign Mu-2 accidents,
had documented rapid ice-
induced loss of airspeed and
high (150-160kt — 280-300km/
h) stall speeds, with extreme
nose-up autopilot trim inputs
impeding recovery from violent
and unpredictable spins. BASI is
not expected to close its file on
the crashes until its recom-
mendations are addressed. •

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