GENERAL AVIATION

Sikorsky to offer S-76 HUMS

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ikorsky Aircraft is shortly
to begin assessing con-
tractor bids to produce a health
and usage moni-
toring system
(HUMS) for
new-production
and in-service
S-76 helicopters.
The manufac-
turer wants to
offer a HUMS at
delivery because
it is finding it
increasingly dif-
ficult to assist
operators with
the operation of
systems pur- I
chased from
and developed
by third-party contractors.
The two known contenders
for the S-76 are the all-UK
Bristow Helicopters/GEC Mar-
coni Defence SystemsAVestland
Helicopters/MJA Dynamic s

team, and the US/UK Teledyne
Controls/Stewart Hughes team.
Sikorsky's request for pro-
posals was prompted largely by
North Sea offshore operators'

Sikorsky action on an S-76 HUMS answers KLM's prayer

requirements, particularly the
difficulties faced by KLM ERA
Helicopters (UK) when it set
up an operation in Norwich,
UK. It was the first helicopter
operator to take advantage of

the liberalisation of the Euro-
pean Single Market (Flight In-
ternational, 21-27 July).
It found itself being in-
structed by the UK Civil Avia-
tion Author-
ity to install a
flight-data re-
corder in its
two S-76Bs
and was

under pres-
sure from the
oil compa-
nies to install
a HUMS. The
Sikorsky sys-
tem will be
retrofittable
to all S-76s,
whether pow-
ered by the
Pratt ' &

Whitney Canada PT6 or Tur-
bomeca Arriel engines.
Sikorsky commercial-market-
ing representative Christine
Tracy says: "The oil industry in
the UK has pretty much man-

Sweden helps ARV Super 2 to live again
A

UK-Swedish joint venture
is to re-launch production
of the ARV Super 2, the UK
trainer produced in the 1980s,
but continually threatened by
project costs.
Aviation (Scotland), estab-
lished in 1990 to take over
development, has found a part-
ner in Uvan Invest, a subsidiary
of Swedish engineering com-

ARV Super 2s: Swedish assembly

pany Uddeholm Tooling.
ASL Sweden has been estab-
lished as a new joint venture,
under which Scottish-built kits
will be assembled at Hagfors,
abou t 95k m (60m) from
Kalstad in southern Sweden,
says ASL Sweden sales manager
Clive Ljunggren. European cer-
tification is expected in January
1994 and a production rate of
100 aircraft a year is consid-
ered possible after 12 months.
The continuing cost of re-
search and development over-
took the original ARV com-
pany, which ceased production
on the Isle of Wight after
building 30 Super 2s. A market
study convinced its new Scot-
tish owners that the design
should be developed to meet
the new Very Light Aircraft
(VLA) certification regulations.
The aircraft has been re-
named the Opus and is to have
the Austrian 60kW (80hp)
Bombardier Rotax 912A four-
stroke engine in place of the
original three-cylinder Hew-

land powerplant. A price of
$60,000 is expected to be set
for a basic aircraft.
Apart from the new engine,
other planned modifications in-
clude a new cowling, 50%
greater fuel capacity, engine-
control improvements, an en-
gine-driven vacuum pump and
small changes to meet VLA
rules — such as the introduc-
tion of cabin heating, to pre-
vent screen misting.
Navigation lights are to be
provided for night and visual-
flight-rules flying, under US
Federal Aviation Regulations
Part 23 requirements, which
also cover the engine (not en-
compassed by VLA rules) and
aerobatic operations.
ASL Sweden says that the
aircraft will be marketed for
recreation and flying training
through a worldwide distribu-
tion network. Performance de-
tails for the Opus include a 90kt
(170km/h) economical cruise
speed and a 750ft/min (4m/s)
maxium-weight climb rate Q

Sikorsky's aims

• Identify and record oper-
ating exceedances
• Track operational usage
• Monitor the health of gear-
boxes, engines and tail-
rotor drives
• Automate rotor track and
balance and power-assur-
ance functions
Options will include capabili-
ties for the integration of data
acquisition for:
• The flight-data recorder;
• Inductive debris monitor
• Electrostatic engine mon-
itoring system.

dated that aircraft used to fly
back and forth to the rigs have
to have a HUMS. We had, up
to about a year ago, been not
far into the HUMS area. .
"After other systems were
developed, the operators came
and asked us how we were
going to support them. We
made a re-assessment and came
up with our approach, which
was to support the current
systems — but then more and
more systems came on line and
we have had to spread our
resources pretty thin. We de-
cided the real way to do it was
to take the leadership position
and develop a production
HUMS for the aircraft."

Meanwhile, Sikorsky will aid
operators by performing "fo-
cused tear-downs" of compo-
nents identified by a HUMS as
suspect, to provide data for tailo-
ring algorithms and thresholds.
It plans to select a contractor
by the end of 1993 and to
complete its production instal-
lation design by the second
quarter of 1994. Aircraft deliv-
ered after that date will have
full provision for the Sikorsky
HUMS installation when it is
certificated in mid-1995. •

NEWS IN BRIEF

RUSSIAN SCHWEIZER
Schweizer Aircraft has deliv-
ered a Model 300C heli-
copter to its Moscow
distributor, Novecopter. It is
claimed to be the first US-
made rotorcraft to be mar-
keted in Russia by a local
company. Russian officials
have warned of a massive
shortfall in light helicopters
in the country.

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