SIMULATION

USA's SOF rehearses with Loral
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IN ATLANTA

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oral is developing simulators
that can be reconfigured
within 2h to represent any of the
US Air Force's special-operations
aircraft, from the Lockheed
MC-130E Combat Talon I to the
Sikorsky MH-60G Pave Hawk.
The devices will be used for
mission rehearsal within the
Special Operations Forces air-
crew training system (SOFATS)
Loral is developing for the
USAF. The company is building
a mission rehearsal device
(MRD) for the MC-130E and
developing another for the MC-
130H Combat Talon II. Contract
options cover MRDs for the HC-
130N/P Combat Shadow, MH-
53J Pave Low and MH-60G.

Rehearsing covert missions in
aircraft poses security problems,
says Loral. Under SOFATS the
five MRDs, which can be recon-
figured to provide the correct
aircraft complement for any mis-
sion, will be linked by a secure
network including two AC-
130H/U Spectre gunship simula-
tors. Participants will "fly"
through a database simulating
the mission area's terrain, which
the USAF requires to be pro-
duced in 48h.

The requirement is compli-

Special forces will rehearse covert missions in reconfigurable devices

cated by the sophistication of
the special-operations aircraft:
Combat Talons are equipped
with ground-mapping and ter-
rain-following radars, forward-
looking infra-red (FLIR) sensor,
radar altimeter and electronic-
warfare (EW) systems, and are
crewed by pilot, co-pilot, flight
engineer, navigators and EW
and communications specialists.
Loral is developing a database-
generation system that will use
maps, photographs and digital
data to produce correlated vis-
ual, radar and infra-red data-
bases, which will be processed
simultaneously by Loral's digital

SIMULATOR REFLECTS CHANGES
CAE-Link is to upgrade the Venezuelan air force's General Dynamics F-16A/B flight simulator under a contract worth almost $4 million. The modified simulator, to he ready early in 1994 with upgraded computer and instructor station, will model the F-16A/B with Operational Capability Upgrade improvements, including cockpit changes.

radar landmas s simulato r
(DRLMS) and Evans & Suther-
land's ESIG-4000 image genera-
tor. The DRLMS will produce
ground-mapping and terrain-
following radar displays, while
the ESIG-4000 will generate out-
of-the-window and FLIR images.
Pilot, co-pilot and flight-
engineer seats, forward, centre
and overhead console structures
are common to all five MRDs.
Physical reconfiguration is
achieved by replacing the win-
dow frames, flight controls and
instrument-panel overlays. The
unique feature is the software-
reconfigurable "virtual display"
concept, which allows different
aircraft panels to be simulated
by the same hardware.
The forward instrument panel
is replaced by three cathode-ray
tubes (CRTs) which display a
digitised photograph of the ac-
tual aircraft panel. Moving in-
struments are inserted calligra-
phically into the static panel
image. Touch-screens and over-
lays with switches allow the
crew to operate virtual and ac-
tual controls.

Loral says the reconfigurable
hardware and software, has been
demonstrated and development
is on schedule. An ESIG-4000
photovisual demonstration to
the USAF is due in February,
and a major review planned for
August-September 1992- will
bring together the MRD hard-
ware, visual and radar simu-
lation and database ahead of its
operational debut in 1993. •

ASDL aims 747-

200 simulator

at UK airlines

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K-based Aeronautical Sys-
tems Designers (ASDL) is to
build and operate a Boeing 747-
200 full-flight simulator. Train-
ing time on the device, which is
located at ADSL's factory in Bur-
gess Hill, West Sussex, will be
offered to 747-200 operators
using London's Gatwick and
Heathrow airports.
A major customer could be
Virgin Atlantic Airways, which
has been looking for a 747-200
machine as an alternative to
buying simulator time from its
competitor, British Airways.
ASDL says: "A number of airline
customers have been identified
as a result of independent re-
search made over the last few
months. It is by no means cer-
tain that Virgin will be one of
those customers, as it currently
trains elsewhere."
ASDL's 747-200 simulator will
be built to UK Level 3 and US
Level C training standards, with
six-axis motion and four-win-
dow McDonnell Douglas Vital
IV visual system. The onboard
instructor station will be based
on Silicon Graphics hardware.
The simulator will enter serv-
ice in one of ASDL's four bays in
November 1992. This short
timescale is made possible by
using aircraft parts and data
from a Link-built 747-200 simu-
lator bought secondhand from
Northwest Aerospace Training,
the company says. ASDL, part of
the Spanish electronics group
Ceselsa, is currently building a
CASA/IPTN CN-235 simulator
for delivery to Indonesian do-
mestic airline Merpati. •

NEWS IN BRIEF

SWISS SIMULATOR
Switzerland's $2.6 billion
Government-to-Government
purchase of 34 McDonnell
Douglas F-18 fighters, sub-
mitted for Parliamentary ap-
proval in December, includes
a Hughes-built twin-dome
weapon tactics trainer with
General Electric Compu -
Scene IV visual systems.

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