DEFENCE

Mid-life

update
for BO. 105s
MUNICH

The West German Ministry
of Defence has awarded
Messerschmitt-Bolkow -
Blohm (MBB) the mid-life
improvement contract for the
German Army's MBB BO.105
anti-tank helicopters as a
stop-gap measure until the
Franco-German PAH/HAC
helicopter enters service. The
programme aims to improve
the flight and mission
performance of the Panzer-
abwehrhubschrauber First
Generation (PAH-1), and to
provide it with night-fighting
capability.
One of the German Army's
operational PAH-ls is now
being used by MBB as a test
vehicle for retrofits and the
flight testing of new equip-
ment. The updating pro-
gramme for the entire PAH-1
fleet will start in 1990, and
will be in two phases.
The installation of a new
engine (Allison 250-C20R-3)
with a new compressor will
comprise Phase One of the
upgrade. This will permit
higher performance, especially
at high-temperature condi-
tions, and a 6 to 7 per cent
reduction in specific fuel
consumption. Advanced-
design main rotor blades will
give the improved PAH-1 8
per cent more lift, and allow
the takeoff weight to be
increased to 2,400kg.
It is proposed that the
upgraded PAH-1 would carry
the Euromissile HOT-2
system with digitalised guid-
ance electronics. The HOT-2
features a lightweight sus-
pension rack and launching
system.
The total weight savings,
improved payload, and
increased performance will
permit either additional fuel
or the integration of a night
vision system in Phase II of
the programme. MBB has
teamed up with Leitz and
Eltro to start the development
of the night vision system. To
retain the PAH-l's agility, the
maximum take-off weight will
only be increased by 100kg.
Phase II, which is scheduled
to begin in 1992, will also
include the addition of self-
defence measures.

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The PAH-1 update features a stabilised roof-mounted night vision system and a new weapons installat

LTV wins anti-satellite contracts

DALLAS

The Missiles Division of the
LTV Missiles and Electronics
Group has received $78 • 4
million for continued design
and development of the
United States anti-satellite
weapon system. The air-
launched anti-satellite
programme encompasses
development and testing of a
small interceptor, the Minia-
ture Vehicle, which, after
boosting, to orbital altitudes,
would destroy an enemy
satellite.

LTV has been prime
contractor to the Air Force
Space Division, the anti-
satellite contracting agency,
since 1975, and has been
responsible for both the
Miniature Vehicle and the
second stage of the rocket
booster. The latest work will
be performed at the LTV
Missiles Division facility at
Grand Prairie, Texas, and is
expected to be completed in
May 1990.
The Miniature Vehicle is at
present launched from a
McDonnell Douglas F-15
Eagle. The system has been
tested on five occasions, with

the last test on September 30,
1986.
LTV has also announced
the award of an interim
$2-2 million funding from
Rockwell International Cor-
poration to develop avionics
hardware and software for the
Space Based Interceptor
programme. The Rockwell
contracts are expected even-
tually to total $30 million.
The programme is one of six
Strategic Defence Initiative
technologies approved
recently by the US Secretary
of Defence for accelerated
development to a demon-
stration and validation
phase.
The Space Based Inter-
ceptor concept consists of a
platform with multiple rock-
ets that could engage and
destroy ballistic missiles in
their boost, post-boost, or
mid-course phases before they
could release their re-entry
vehicles. The Interceptor
could potentially servel as
the first line of protection
in a layered SDI defence
screen.

LTV will supply electronic
subsystems for the Kinetic
Kill Vehicle (KKV) element

of the Space Based Inter-
ceptor sub-orbital flight
experiment. This trial will
demonstrate and validate
technology for the KKV
seeker, guidance, control, and
propulsion, at high closing
velocities. The company's
work is an extension of on-
going efforts in the US Air
Force's Integrated Electronics
Technology programme
(Intelect). The programme
aims to demonstrate the guid-
ance and signal processing
hardware and software
required for a lightweight,
chemically propelled, space-
based KKV like the Space
Based Interceptor.
Flexible Lightweight Agile
Guided Experiment (Flage)
technology which was devel-
oped from SDI research of
endoatmospheric defence
against tactical ballistic
missiles and air-breathing
missiles was pioneered by
LTV, and will be utilised in its
latest work. The follow-on
Extended Range Intercept
programme (Erint), which is
designed to extend Flage's
capability to higher altitudes
and longer ranges, will also be
accessed by LTV.

FLIGHT INTERNATIONAL, 7 November 1987 II