MOSCOW AEROSPACE '93 REPORT

Perm re-opens door to General Electric
E

ngine manufacturer Perm
has re-opened talks with
GE Aircraft Engines and its
partner Snecma on a deal to
help modify the Aviadvigatel/
Perm PS-90A turbofan, even
though it announced an agree-
ment with rival engine-maker
Pratt & Whitney at the Paris
air show in June.

Agreement on which West-
ern company will be selected to
modify the PS-90A has still not
been reached, according to
Perm chief Yuri Reshetnikov.
"We're still in negotiations
with General Electric and Pratt
& Whitney," he says.
"We will decide on the win-
ner by the end of the year,"
Reshetnikov adds.
Reshetnikov says that GE has
revised its position on financ-
ing a deal to offer a re-fanned
version of the engine. "The
previous offer was unaccepta-
ble to us," he comments. The
new offer "...means that we're
talking again".
Pratt & Whitney's proposal
centres on joint development

of a package of modifications.
An agreement on the principles
of co-operation was signed at
Paris. "I can say we've defi-
nitely made more progress with
Pratt & Whitney," says Reshet-
nikov. "Soon, we'll probably
sign another agreement, cover-
ing the general design of the
engine." He insists, however,
that the door remains open to
both proposals.
The 160kn (35,0001b)-thrust
PS-90A already powers the Tu-
polev Tu-204 and the Ilyushin
11-96 airliners, and in another
version, the new Yakovlev Yak
242. Western engine man-
ufacturers consider the engine
to be the most advanced of its
type currently built in Russia.
Western involvement in de-
velopment of the PS-90A
would include an attempt to
certificate the engine in the
west, where, according to Avi-
advigatel/Perm, it could be sold
at a price "ten.times lower",
than the similarly sized Pratt &
Whitney PW2037 and Rolls-
Royce RB.211-535E4. •

New funds brighten Mi-28's future T

he Russian army is
financing development of
an all-weather version of the
Mil Mi-28 Havoc attack heli-
copter — which could enter
series production by 1996 —
despite initially adopting the
Karriov Ka-50 Hokum, ac-
cording to Mil officials.
Mil started work on an
all-weather variant of the Mi-
28, the Mi-28N, in 1992, al-
though its first flight date
remains dependent on the of-
ficial funding available.
Four prototypes of the
clear-weather-capable Mi-28
Havoc have been built and
they are nearing the end of
flight testing.

1
The all-weather variant will
be equipped with a forward-
looking infra-red sensor and a
mast-mounted radar system.
The adoption of the Ka-50

has been contested fiercely by
Mil. It claims that the emerg-
ing army doctrine of nap-of-
the-earth flying is more suited
to the Mi-28N than the Ka-50.
The Ka-50 is a single-seat
helicopter, while the Mi-28
is designed with the tradi-
tional pilot/weapons operator
layout (Flight International, 1-
7 September).
Mil is also continuing pre-
liminary design work on the
Mi-40 transport/attack heli-
copter, a potential Mi-24
Hind replacement, although it
has no government funding
for this project.
Michael Loginov, chief of
marketing in Mil's research
department, admits that the
future of both projects hangs
on a debate in progress on
mobile-armed-forces doctrine
within the army. •

Tests of vertical-launched AA-12s were a hit, but orders are missing

Vympel completes new AA-12 tests R

ussian missile specialist
Vympel has completed
test-firing programmes on ram-
jet/solid-motor and vertical-
launch variants of its AA-12
air-to-air missile (AAM). Ac-
cording to company officials,
around 20 firings of both vari-
ants were carried out sucess-
fully for proof of concept.
The compound ramjet/solid
propellant system has been de-
veloped despite the lack of a
specific Russian air force re-
quirement, says Vympel. The
aim, says the company, was to
provide an engagement range
at low-to-medium level compa-
rable to that of the "conven-
tional" AA-12 at high altitude.
Officials quote an 80-100km
(45-55nm) range for the ramjet
system at low-to-medium level.
Ground- and ship-launched
variants of the missile are
under study, although no firm
requirement exists.
Meanwhile, the future of the
original AA-12 air-to-air mis-
sile, which carries the export
designation RVV-AE, has been
cast into doubt by the failure of
the Russian air force to place a
production order.
Senior officials from the
Moscow-based design bureau
admit that although develop-
ment of the AA-12, dubbed the
Amraamski, is complete, it has
not been accepted officially by
the state as ready for service.
The AA-12 was developed
for Mikoyan MiG-29s and
MiG-31s. Although the system
can be integrated with the stan-
dard MiG-29 Cassegrain radar
as well as with the MiG-29Ms I
Zhuk radar, funding has not
been made available for a retro-
fit programme.
"The problem is money,"
says Vympel, which adds that
while development is complete,

"...integration with the carrier
aircraft is the issue now".
Despite the lack of a produc-
tion order, Vympel claims that
series production has actually
begun: "We have decided our-
selves to go on with series
production. We are taking the
risk ourselves."

The move is in part caused
by the lack of alternative work
for the production site. The
company is also pursuing over-
seas sales.
Vympel also claims that the
AA-12 can be carried internally
on "advanced-carrier aircraft",
suggesting that the missile was
intended for follow-on designs
to the Fulcrum and Flanker. D

October flight for

Ilyushin 11-103
I

lyushin's 11-103 four-seat,
low-wing monoplane is to fly
for the first time next month.
The aircraft is due to be certifi-
cated in 1994 by Russian and
Western authorities, and will
be available to customers later
in 1994, says the company.
The 11-103 is the first gen-
eral-aviation aircraft to be of-
fered by Ilyushin which, in
common with other Russian
and other CIS airliner manufac-
turers, is trying to expand its
product line. The all-metal air-
craft was on static display at
Zhukovsky. With its tapered
fuselage, it is similar in appear-
ance to a typical Piper single.
The 11-103, powered by a
Teledyne Continental IO-
360ES, has a cruising speed of
140kt (255km/h) at 10,000ft
(3,000m) in its trainer guise. It
has a claimed +6/-3g capability.
A touring version of the aircraft
will also be offered. •

FLIGHT INTERNATIONAL 8 - 14 September, 1993 15