Patria

Advanced Jet Pilot Training

Nordic Pilot Training Centre

The Concept

Together with the Finnish Air Force, Patria offers jet pilot training for foreign military customers using the Finnish Air Force Hawks.

The Nordic Pilot Training Centre, NPTC is set up by:

- **The Finnish Air Force**, Training Air Wing (TAW) with over 80 years of experience as a pilot training organisation
- **Patria**, Finland's leading company in defence sector

The NPTC offers fast jet training equivalent to NATO pilot training. The outcome is an interoperable fighter pilot ready to join an operational conversion unit (OCU) to fly a modern generation fighter.

NATO Compatible Advanced Jet Pilot Training

The training objective is to produce proficient and mission oriented independent pilots who are capable of making decisions and are eligible for follow-on training.

There are standard training syllabi for all courses with flexibility to tailor the content based on the customer's specific requirements and objectives for training.

Phase III, Advanced Training

The objective of the Phase III, Advanced Flight Training is to receive a type conversion training for the Hawk including an IMC rating, and to fly a sufficient number of various basic flying sorties to receive a skill and experience level needed for tactical training.

Phase IV, Tactical Training

After the tactical training pilots will have a good knowledge of and flying skills for 2-ship tactics. The student shall demonstrate proficiency in operations using various geometries in a dynamic air combat arena.

Pilots are also trained to have competencies needed for air-to-ground weapons employment while conducting a tactical ground attack mission in simulated hostile environments.

Passing this tactical phase enables the student to continue his tactical training with a fighter in a safe and effective way.

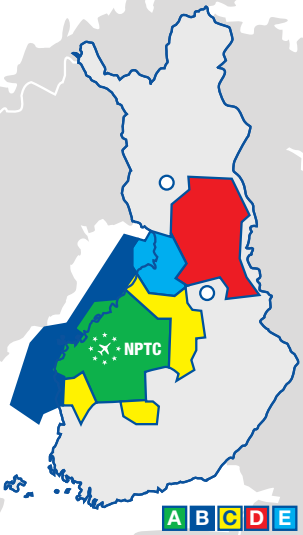
The Pilot

- Independent decision maker
- Disciplined and mission oriented
- Masters basic flying skills
- Possesses comprehensive theoretical knowledge
- Is conversant with the various facets of airmanship
- Is familiar with European climate and weather conditions
- Assumes an appropriate attitude towards flight safety related matters
- Military ethos
- Is fully proficient in two-ship employment in high-risk air combat situations
- After NPTC training is eligible for operational conversion training for modern fighter aircraft

Kauhava Air Force Base

The NPTC offers modern training facilities at Kauhava Air Force base, located in the western part of Finland. The base is solely operated by the FINAF Air Training Wing and concentrates only on jet pilot training.

Each training mission can be started almost immediately after takeoff; this provides for maximum efficiency of the airborne time.



Airspace

The NPTC has one of the largest training areas available in Europe. During military flight training activity hours (usually from 0900 to 1600), no civil traffic is allowed between 2500 ft MSL and flight level 250 in the green area (A).

A+B = Daily used permanent training airspace.

A = 60 000 km²
B = 40 000 km²

C+D = Available airspace with TSA and planned to be used temporally.

C = 30 000 km²
D = 50 000 km²

E = Airbase is used during A/A exercise events directed to B area and exercises directed to D area

Training Environment

The NPTC offers modern classrooms and mission briefing rooms with unlimited access to computer-based training programmes, briefing materials and other sources that students need in order to prepare for coming missions and classes

Flight training is based on the building blocks principle with an optimal learning curve, while monitoring of an individual student's progress.

New Mission Planning and Debriefing Systems have been developed to support the Glass Cockpit Hawk training environment. Particular emphasis is put on debriefings and sortie evaluation in which technical aids are essential elements of the learning process that a student is undergoing and they enhance his growing towards maturity in airmanship in a demanding learning environment.

With respect to the cockpit design and performance the Hawk simulators correspond to the real aircraft as closely as possible. They are fitted with a three-channel day visual display system manufactured by McDonnell Douglas.

Climate conditions support well the goals of pilot training. The coldest month for ex. in year 2008 was January, with an average temperature of –2,2 C. In the pleasant and light summertime temperatures reaches up +30 C. Yearly there are only few days when flight operation is limited by the weather.

Equipment

Upgraded Hawk Mk51/66

Training pilots on a fast jet aircraft is an essential intermediate stage in moving to a front line fighter. Learning the flight characteristics of a jet and maintaining flying skills is considerably cheaper to do on a jet trainer than on a fighter.

Patria has implemented a new system modernisation of the Hawk jet aircraft in order to further increase the quality of fighter pilot training. The main goal in the system design was to build a cost-effective solution for Hawk lead-in training with excellent mission capability, and a high level of flight safety.

The new Hawk system includes live and simulated weaponry and several weapon types with various A/A and A/G sub-modes. After simulated weapon delivery No Drop Scoring (NDS) results can be evaluated immediately during flight or in the debriefing.

Photo: Perttu Karivalo © 2009

Glass Cockpit Characteristics

The upgraded Hawk includes for example:

- Mission Computer (MC)
- Integrated navigation system, including VOR/ILS, DME, INS and GPS
- Multi Function Display (MFD), including e.g. a digital moving map
- Up Front Control Panel (UFCP)
- Head up Display (HUD)
- Back up Flight Instrument (BFI)
- Mission Data Recorder (MDR)
- Computer based Mission Planning System (MPS) and Debriefing system
- Enables embedded training system

Patria

Benefits for the Customers

- Flexible, tailor-made training programme
- Meet the demands of individual trainees
- Leading edge technology
- Large airspace and thus less restrictions for flying
- European weather conditions – also adverse weather conditions training
- Cost-efficiency – high-standard NATO style training for competitive prices

Contact

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