



HATSOFF

Helicopter Training Centre

HATSOFF
HELICOPTER TRAINING PVT. LTD.
A HAL-CAE Joint Venture



HATSOFF – turnkey helicopter training in the heart of Asia



Whether your rotary wing training requirements are for high mountain operations or the desert, military or civil, flight or maintenance, basic or advanced, the HATSOFF Helicopter Training Centre is designed to provide your helicopter crews with a superior learning experience and the highest-quality helicopter training.

HATSOFF is a joint venture between one of the world's premier defence and aerospace companies, Hindustan Aeronautics Limited (HAL) of India, and CAE, a global leader in simulation and integrated training solutions. The joint venture company is known as the Helicopter Academy to Train by Simulation of Flying (HATSOFF).

HATSOFF opened for training in 2010 when it began offering training for Bell 412 operators. HATSOFF will continue to add training programs and by 2012 is expected to be offering complete training solutions for the Bell 412, the Eurocopter Dauphin, and both military glass cockpit and civil/conventional cockpit variants of the HAL-built Dhruv Advanced Light Helicopter. Other military and civil rotary wing platforms may be added in the future based on customer demand.

Training capabilities at HATSOFF encompass the latest technologies, including a full-mission simulator featuring CAE's revolutionary roll-on/roll-off (RORO) platform so cockpits for each helicopter type can be used in the full-mission simulator. The comprehensive training media includes a docking station to allow each cockpit to be a flight training device when not in the RORO platform, an on-board instructor station, off-board instructor operation station, computer-based training, simulation-based classroom instruction, brief/debrief rooms, courseware, and training management information system. As well, the HATSOFF campus provides accommodations, food service, and business amenities to help facilitate your crews' learning environment and overall training experience.

The HATSOFF Helicopter Training Centre leverages the collective and proven experience of both HAL and CAE in delivering comprehensive, cost-effective instruction to produce safe, proficient and mission-ready crews.

An accessible, vibrant location

The HATSOFF Helicopter Training Centre is situated in rapidly growing South India, convenient to Australia, the Pacific Rim, the Middle East, Africa, and Europe. The new Bengaluru International Airport (BLR) at Devanahalli features direct flights to most major cities, including London, Paris, Frankfurt, Dubai, Bangkok, Kuala Lumpur, and Singapore.

Bangalore is known as the 'Silicon Valley of India' and home to numerous aerospace, telecom and software companies, as well as national research and defence organizations.

It is also referred to as the 'Garden City' for its abundance of parks, gardens, temples, and centuries-old landmarks. The shopping scene offers modern malls and traditional markets, and the restaurants serve a cornucopia of regional and international cuisines.



Rotary wing training tailored to your needs

Training for the aircraft types represented at the HATSOFF Helicopter Training Centre can be customized for numerous civil and military missions such as search and rescue, medical airlift, disaster response, homeland security, offshore operations, geological survey, VIP transport, law enforcement, high-altitude operations, and various military tactical scenarios.

Basic and advanced training

HATSOFF type conversion and recurrent training is designed to provide aircraft system knowledge, situational awareness of the terrain, weather and emergencies, effective crew resource interaction in a high-stress environment, and enhanced confidence – all leading to safer flight and mission success.

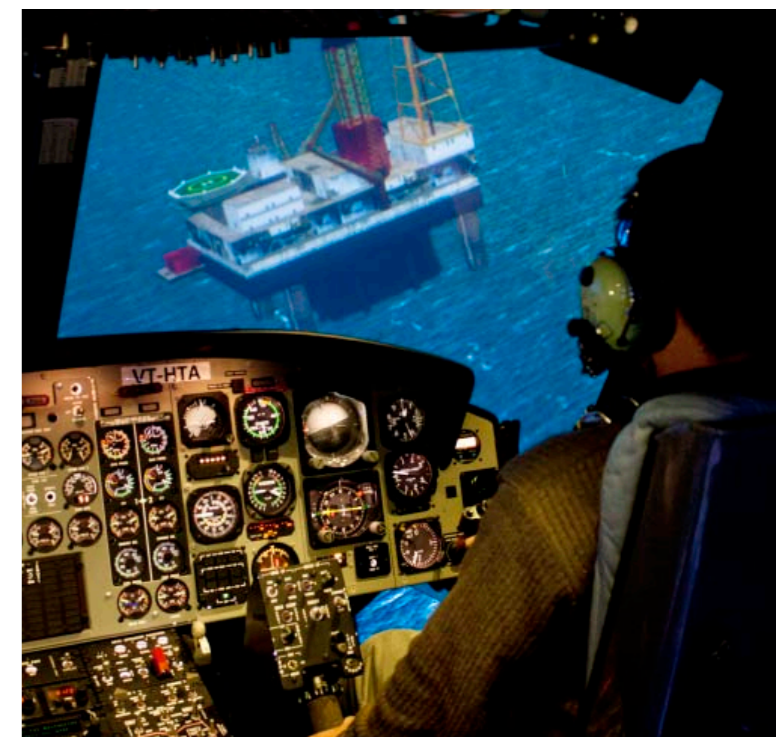
Basic training encompasses all aircraft systems and procedures: avionics, navigation aids, communications systems, automated flight controls, fuel, hydraulics, landing gear, and electrical, including malfunctions. Also, the comprehensive synthetic training program includes taxi, take-off, landing, cruise, hover, instrument flying (IFR), air traffic control, cockpit resource management (CRM), and response to aircraft emergencies.

Para-military crews learn elements of mission rescue, emergency medical service operations, confined area landings and hovering in congested areas. Military crews also learn basic tactics, formation flying, low-level flying, desert operations, and night vision goggles (NVG).

Advanced training available includes advanced tactics, landing in brown-out or white-out conditions, advanced CRM and emergency procedures, formation lead, advanced NVG, nap-of-the-earth flight, mountain operations, maritime operations, weapons training, and electronic warfare.

Realistic mission training

The simulated synthetic environments for mission training enable feature-rich scenarios for challenging aircrews to achieve full mission readiness. Highly accurate geo-specific and geo-typical terrain databases depict the areas where crews will operate, including coastal, mountainous, forest, and urban areas. Realistic weather effects displayed both out-the-window and via cockpit sensors fully immerse the aircrew in a realistic synthetic environment. Training includes the full suite of weapons and electronic warfare systems for which the aircraft is capable, such as missiles and rockets, forward-looking infrared (FLIR), radar/laser/missile warning receivers, jammers, chaff/flare dispensers, and other countermeasures. Finally, the realism of the synthetic environment is enhanced with computer-generated friendly and enemy forces, surface-to-air missiles, and other threats. All this is designed to prepare the crew to execute their mission with precision and provide the skills necessary to handle the unexpected.



Training technology at HATSOFF

The HATSOFF Helicopter Training Centre incorporates the most advanced technologies available for rotary wing aircraft training. The primary components include a full-mission simulator, flight training devices, multimedia classrooms, computer-based training, brief/debrief rooms, courseware, curricula, and training management information system. Our expert instructors are qualified for the aircraft types and missions they teach, and undergo regular training to keep their knowledge current.



Flight training device

The Level 6-equivalent Flight Training Device (FTD) is a “docking station” to which any of the RORO cockpit modules can be attached, effectively converting the cockpits not being used in the full-mission simulator into an FTD. The docking station has its own three-channel, 150 x 40 degree visual system and independent computer complex. This enables training on a second helicopter type when the full-mission simulator is in use.

Mission preparation and review

The off-board tactical operation station (TOS) enables an instructor to rehearse a mission, control the execution of a tactical scenario, or monitor training. The brief/debrief rooms enable the instructor to prepare and review training sessions and mission rehearsal exercises. The debrief room features a large Smartboard screen on which the instructor can display (in multiple windows) all of the information relevant to mission preparation or review of a completed exercise (tactical map, cockpit video, stealth view, cockpit video, and communications). The debrief room also has its own stealth view display (SVD) and tactical map, allowing the instructor to pre-fly a mission or to observe an exercise.

Amenities

HATSOFF is focused on making your overall training experience as comfortable and pleasant as possible. That is why we have provided on-site amenities for your comfort and convenience. You will find new accommodations, food service options, and a range of business amenities designed to make your training experience a positive one.

HATSOFF – your training partner

The HATSOFF Helicopter Training Centre is committed to providing you the tailored training your helicopter crews need to fly your unique missions safely and effectively. We invite you to talk with us about your specific rotary wing training requirements so we may design and deliver an innovative, flexible training program for your crews.



Full-mission simulator and RORO cockpits

The full-mission simulator complex consists of a “mothership” with RORO platform and cockpit modules for each of the simulated helicopters:

- HAL Dhruv (Indian Army/Air Force glass cockpit variant)
- HAL Dhruv (civil/conventional cockpit variant)
- Bell 412
- Eurocopter Dauphin

The mothership simulator platform encompasses a common motion system (six degree-of-freedom), vibration platform, and visual display system. The visual system is five-channels with a 220-degree horizontal by 60-degree vertical field of view. Liquid Crystal on Silicon (LCoS) projectors relay the out-the-window scenes from a CAE Medallion-6000 image generator. Databases representing areas of India and other mission locales specified by HATSOFF customers provide realistic, mission-specific training. During 2010, the simulator was qualified to Level D, the highest qualification for flight simulators, by India’s Directorate General Civil Aviation (DGCA) and the European Aviation Safety Agency (EASA).

The RORO cockpit modules each contain, appropriate to the aircraft being simulated, a window package, main instrument panel, pedestal (inter-seat console), overhead panel structure, cyclic and collective, rudder pedals, all other primary and secondary flight controls, aircraft-specific furnishings and parts, pilot seats, and on-board Instructor Operator Station (IOS).





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