



# NEWS RELEASE

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## Fact Sheet: The SAF's Airborne-Trooper Training Facility (ATF)

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### Introduction

1. The current Parachuting and Rappelling Training facilities in Hendon Camp have been in use since the early 1990s. As part of the 3rd Generation SAF training transformation effort, a modern and integrated airborne training facility was conceived to be located in Pasir Ris Camp to serve all Commando training schools, as well as operational units from the Commando Formation.

2. The ATF is **an all-weather, one-stop training facility that hones the skills of our soldiers to enhance their proficiencies in basic airborne, heli-rappelling insertion and heliroping insertion.** The first group of 80 trainees from the SAF Basic Airborne Course used the ATF for the first time on 17 Nov 2014.

3. The ATF was developed and designed by the SAF in partnership with Defence Science and Technology Agency (DSTA). Both the SAF and DSTA also manage the operational support and maintenance.

### Structure of the ATF

4. The ATF comprises two main training facilities namely, the Parachuting Training Facility (PTF) and the Rappelling Training Facility

#### (I) Parachuting Training Facility (PTF)

5. The PTF is an automated system consisting of three trainer systems that closely simulate a complete aircraft exit and landing experience of flight time, landing and ground drag.

- a) **Landing Trainer System (LTS).** The LTS descent system trains our soldiers to correctly execute the various Parachute Landing Fall positions on a landing area similar to that of a live descent. The LTS has a descent rate ranging from 2 m/s to 4.0 m/s and has a variable height of 4m and 8m. This enables our soldiers to progressively build up their confidence and competency in landing in a safe manner.
- b) **Rotational Trainer System (RTS).** The RTS apparatus provides training for airborne canopy control, reserve procedures, flight, twist and landing emergencies both with and without equipment and weapons.
- c) **Airborne Trainer System (ATS).** Having progressively gone through the LTS and the RTS, trainees are able to experience exiting from a height of 11.2m and proficiently perform a complete flight drill as well as emergency procedures during flight. The ATS provides realistic experience in terms of controlling direction of flight and executing the various Parachute Landing Fall positions including drag upon landing.

6. There are **three different types of aircraft mock-ups** within the PTF. The three aircraft mock-ups are the Hercules C-130, Fokker-50 and Chinook CH-47 which are designed in accordance to the actual interior dimensions and layout of these aircraft. This includes the anchor points, jump cables and seats. This allows soldiers to be familiar with the aircraft and provides a safe and realistic training experience prior to the actual live descent.

## **(II) Rappelling Training Facility (RTF)**

7. The RTF enables soldiers to train safely and progressively in basic and advanced rappelling, urban climb and roping descent. It comprises three main training clusters namely, the Basic Training Cluster (BTC), Intermediate Training Cluster (ITC) and the Advance Training Cluster (ATC).

- a) **The Basic Training Cluster (BTC).** The BTC has two slopes, a 60° slope for hip rappel, hasty rappel and Australian rappel and an 80° slope for cliff rappel.
- b) **The Intermediate Training Cluster (ITC).** The ITC consists of training platforms for various heli-rappelling and roping training to simulate a Chinook CH-47 ramp door and the side of a Super Puma helicopter. It also incorporates an urban and lift wall climb.
- c) **The Advance Training Cluster (ATC).** This cluster enables trainees to undergo free-climbing, rappelling and Method of Entry training using anchor points

located near the windows for belaying and rappelling. It includes a Super Puma mock-up at the eighth storey for heli-roping at 90 ft to simulate a high obstacle typically present in a sea vessel structure. It also incorporates "T" shape windows and pipelines for urban climbing and balconies for rappelling training.

### **In Summary**

1. The Airborne-Trooper Training Facility (ATF) provides:
  - A realistic training environment for soldiers to hone their skills in parachuting and rappelling;
  - Effective training as soldiers progressively build up their confidence and competencies in their airborne-trooper skills;
  - Efficient training as the ATF is an all-weather and a one-stop facility.
2. The ATF embodies the integration of state-of-the-art technology to for airborne and rappelling training.

### **State-of-the-art Features:**

- a) **Realistic Airborne Experience.** The Parachuting Training Facility (PTF) employs advanced technology to closely simulate a realistic airborne experience. The Airborne Training System (ATS) took inspiration from modern vehicle manufacturing plants where vehicles are moved along a belt at a height. Adapting the concept, soldiers are able to experience exiting an aircraft at a height of 11.2m and experience a realistic descent. Instructors are able to vary the speed at which they land and control the amount of drag the soldier experiences. The mock-ups of Chinook CH47 ramp doors, Super Puma exit doors and high structures augment the realistic environment for the rappelling training, further sharpening our soldiers' operational readiness.
- b) **Training Review.** Technology is also employed in the embedded instrumentation that allows for instructors to review a soldier's performance through the video and image feedback system. This promotes coaching effectiveness and enhances soldiers' learning experience.

3. The ATF is a **first-of-its-kind** training facility. While similar facilities exist in other military establishments, they are mostly outdoors and are single-use apparatuses. The indoor design enables soldiers to train during inclement weather and the ATF also allows for night training to be conducted in the daytime via the option of cutting off daylight into the facility. The ATF is a one-stop, all weather facility.

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