ROYAL CANADIAN AIR FORCE

AVIATION ROYALE CANADIENNE

AIRPOWER IN FORMATION
AGILE • INTEGRATED • REACH • POWER

PUISSANCE AÉRIENNE EN FORMATION
AGILITÉ • INTÉGRATION • PORTÉE • PUISSANCE

ROYAL CANADIAN AIR FORCE ROTARY WINGED AVIATION

Presented to: Global Defence Helicopter

Colonel David Forbes
Commander 1 Wing

CANADIAN ARMED FORCES
FORCES ARMÉES CANADIENNES

"Flying in Formation"

<Voler en formation>

National Defence Défense nationale

Canada

Outline

- 1 Wing Force Laydown
- Geography and Policy
- Mission History
- New Capability Roadmap
- Questions

1 Wing – Tactical Aviation

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- 1 Wing HQ in Kingston, Ontario
- 1625 personnel (Regular/Reserve)
- 7 x Sqn's:
  - 3 x Manoeuver Sqn's
  - 1 x Spec Ops Avn Sqn
  - 1 x Support Sqn
  - 1 x Op Training Sqn
  - 1 x Air Maintenance Sqn
- 67 x CH146 Griffons
- 14 x CH147F Chinooks

RCAF Tactical Aviation

- 67 x CH146 Griffon
  - Introduced in Mid-1990s
- 14 x CH147F+ Chinook
  - Replaced 8 x interim CH147D bought for Afghanistan
- Mobility
  - Airmobile/Air Assault
  - Command and Liaison
  - Special Insert/Extract
  - Forward Aeromedical Evacuation under development
- Firepower
  - Mutual Escort and Self Defense
  - Close Combat Attack (MG only) support to Ground Force
  - Battlespace Interdiction (IED teams)
- Reconnaissance
  - Rear Area Security (Battlespace Interdiction)
  - Screen/Guard tasks

1 Wing
ROYAL CANADIAN AIR FORCE

Personal Weapons

841 x  C7

403 x  C8

24 x  C9

20 x  C6

4 x  C19

14 x  Shotgun

750 x  C22

Aircraft

53 x  CH146 Griffon

14 x  CH147F Chinook

Air Weapons

40 x  M134

30 x  AU-21

75 x  C6 Air Variant

Vehicles

25 x  LUVW

26 x  LSVW-Cargo

29 x  LSVW-Van

89 x  MSVS

20 x  HLVW-FAR

23 x  HLVW - Other

9 x  TFAR

10 x  MULE D-6 variant

30 x  10T Trailers

56 x  1T – 1.5T Trailers

8 x  MKT

50 x  Other Trailers, Generator

Deployable Shelters

7 x HQSS

31 x  SEV (Variants)

Mobility Kits

1 x DRK - West held in Edmonton – TAD Dom
1 x DRK - East held in Valcartier – TAD Dom
1 x CRK – TAD 1
1 x PUK (7PK) – TAD 2/3 (Avn Bn)

Establishment

Legend  100  10

	Aircrew	Supporter
RegF		
ResF		 Civ 

Tactical Aviation Employment

Organization

Up to 201 Personnel
(179+22)

HQ / Ops
35 Pers

CH-146 Flt
6-8 CH-146
36 Pers

CH-147 Flt
3-4 CH-147
25 Pers

146 Maint
35 Pers

147 Maint
40 Pers

Log Flt
30 Pers




STRONG
at home



SECURI
in North America

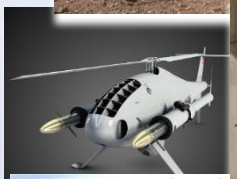






ENGAGED
in the world











The “Home Game” Problem

Tactical Aviation Employment History

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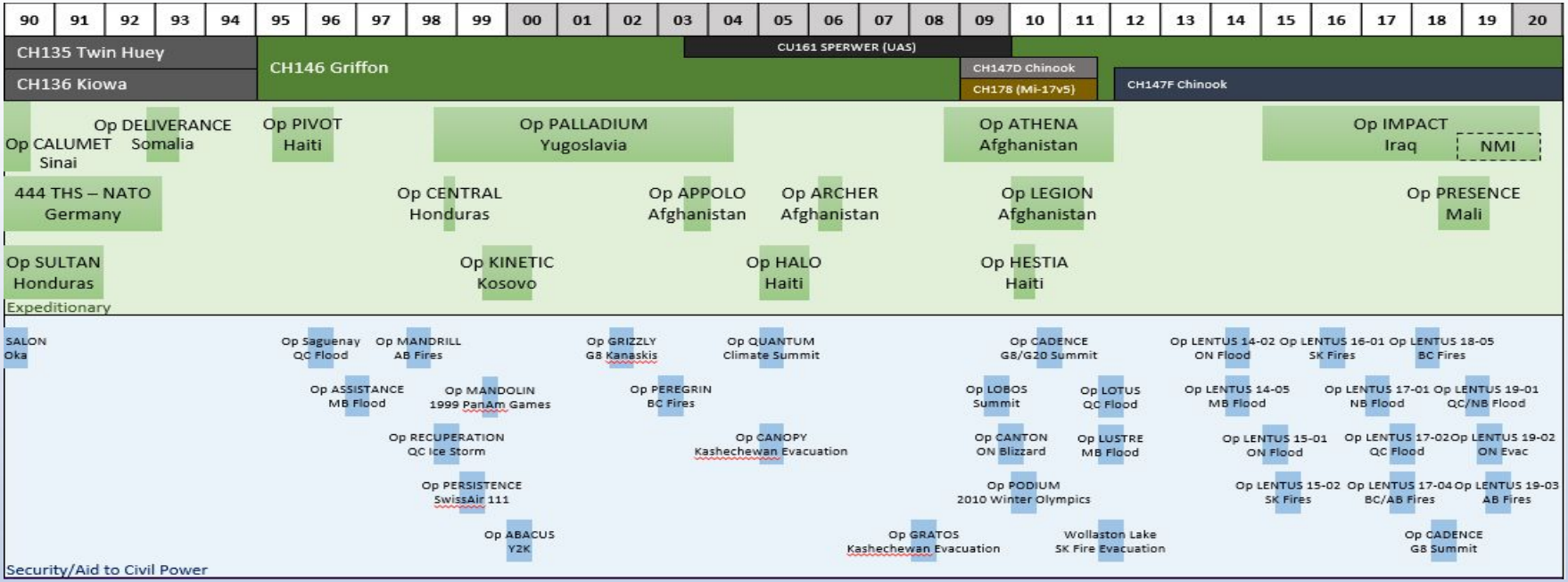
- Consistent rate of expeditionary operations
- Increasing rate of domestic operations
  - OP NANOOK (Arctic sovereignty)
  - OP LENTUS (Disaster relief)
  - OP LASER (Pandemic response)
  - OP VECTOR (Vaccine distribution)

- Expanded multi-national training
  - Ex ARCTIC WARRIOR 21 (USA)
  - Ex VOLFA 21 (France)
  - Ex MAPLE RESOLVE 21 (Canada)
  - Ex MARINE WARFIGHTER (USA)
  - JPMRC (USA)
  - Ex OAK RESOLVE (LATVIA)



RCAF Tactical Aviation Renewal

- Regain operational overmatch over our adversaries:
  - Lethal, relevant capabilities, interoperable/ interchangeable with closest allies
- Adapt to the changing operational environment and evolving threats
  - Acquire a set of modern/interoperable capabilities to support Canadian Army and CANSOF aviation operations over the next decade
  - Evolve TTPs to exploit modernized capabilities and technology to the full extent
  - Invest in our people

Capability Recapitalization

- Griffon Limited Life Extension
  - New engines
  - Glass Cockpit
  - Strakes and Fast Fin
- Next Tactical Aviation Capability Set (nTACS)
  - Multi Fleet
  - Crewed and Uncrewed
  - Infrastructure
- Chinook Mid Life Block Upgrade
  - 2030s

Griffon Limited Life Extension - GLLE

Extend the life of the RCAF's CH146 Griffon fleet until at least the mid-2030s. Accomplished through:

- Replacement of obsolete avionics systems
- Upgrade cockpit to digital configuration
- Replacing obsolete systems to sustain current baseline capability (speed, payload, range)
- Meeting new CNS/ATM and Mil Standards:

  - ADS-B, PBN, Comms

  - IFF Mode 5, Freq Hopping, Encryption
- Integration of sensor systems
- Replacement of engines with digital variants
- Upgrade of all training devices

Next Tactical Aviation Capability Set (nTACS)

- FUNDED - $18.343b CAD ($13.2b USD/12.3b EUR)
- nTACS will provide a set of modern tactical aviation capabilities from the 2030s+.
- ***It is not strictly a CH146 Griffon replacement***.
- Traditionally, Tac Avn has been composed of vertical lift platforms delivering roles of: aerial firepower, mobility, reconnaissance and command and control effects in the field.
- nTACS will expand on this through the addition of the following **attributes** in order to ensure effectiveness and viability in the current developing and future operating environment:
  - Connectivity: Data centric = integration into CAF/Allied networks, data management, and targeting;
  - Open Systems Architecture (OSA) framework: able to rapidly integrate new technologies and new mission systems at the speed of relevancy
  - Reach= speed+ range + endurance (enables self-sustainment and self-deployment);
  - Survivability and Lethality.

Questions?