

Kabul



Wildlife Management in a Conflict Zone



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Kabul International Airport Afghanistan



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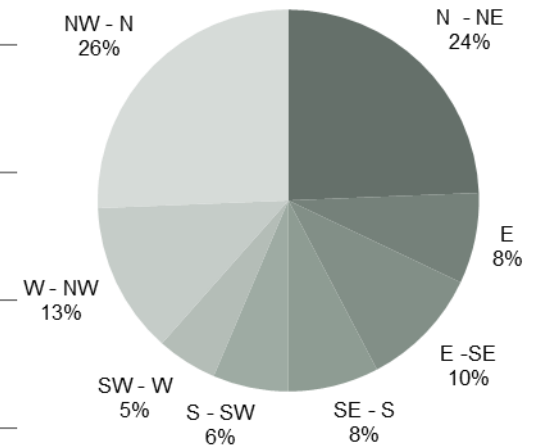
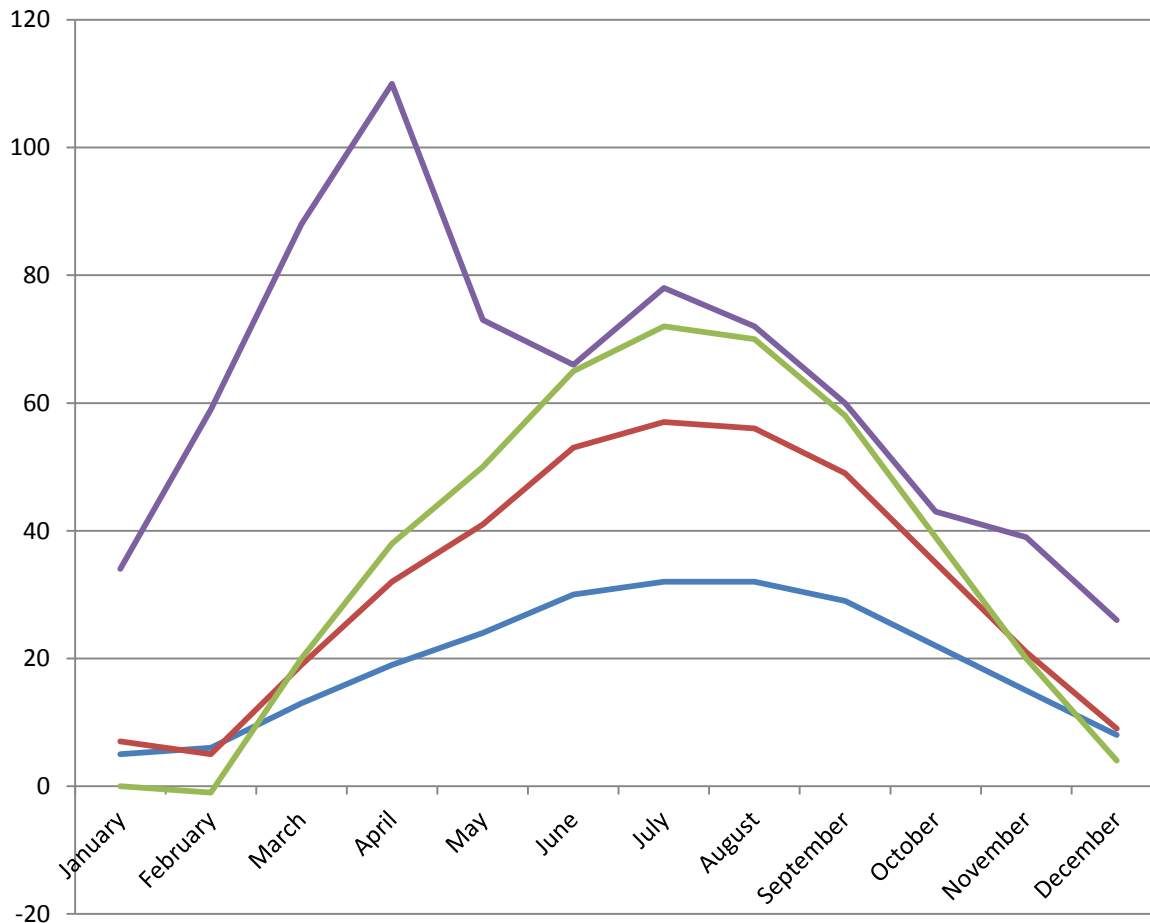
Topography

The map illustrates the topography of Afghanistan and its neighboring countries. Key features include:

- Geographical Features:** The Hindu Kush mountains are prominent in the north and east. The Wakhjan Corridor is shown in the northeast. The Helmand River flows through the south, with the Helmand Range to the south of Kandahar. The Rigestan is located in the southwest.
- Cities and Towns:** Major cities include Kabul (marked with a red dot), Herat, Kandahar, Bagram, and Mazar-e Sharif. Other towns shown are Herat, Farah, Zabol, Zaranj, and Bannu.
- Mountains and Peaks:** Notable peaks include Nanga Parbat (8,126 m / 26,660 ft) and Nowshak (7,485 m / 24,557 ft).
- Rivers and Water Bodies:** The Helmand River, Arghandab River, and Jhelum River are shown. The Darya-e Kunduz and Darya-e Murghab are also labeled.
- Infrastructure:** The 1972 Line of Control is indicated in the northeast. The Khyber Pass is shown in the east.
- Legend:**
 - International boundary (solid line)
 - National capital (star symbol)
 - Elevation point (triangle symbol)
 - Archaeological site (dotted line)
 - Historic/cultural site (solid triangle symbol)

Chāgai Hills Bahāwalpur 0 50 100 150 Miles

Kabul Temperature and Precipitation



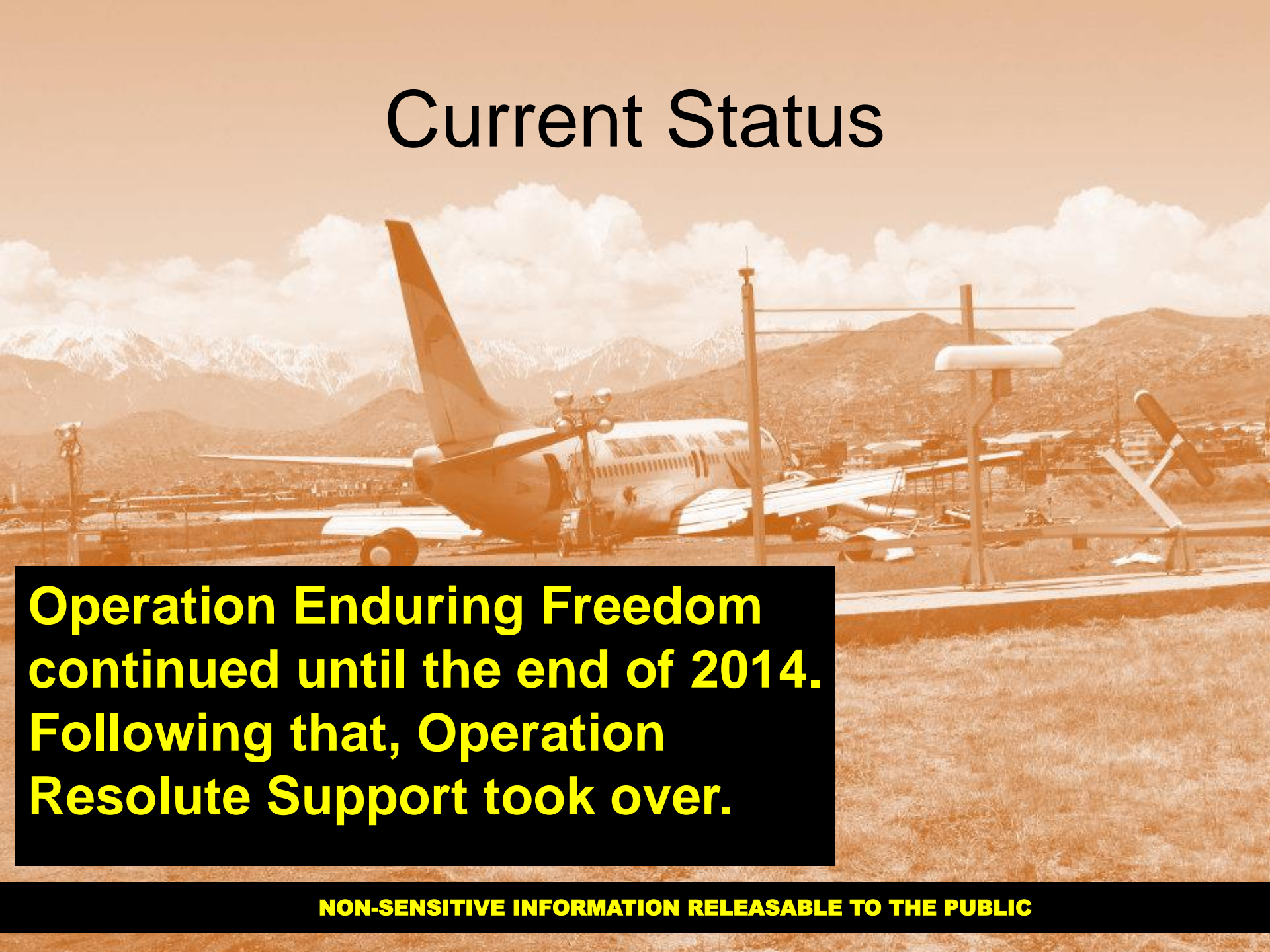
- Average Precipitation
- Average Minimum Temperature
- Average Temperature
- Average Maximum Temperature

History

Kabul International Airport was built in the early 1960s. It was used by the Soviet army from 1979 – 1989, after which it returned to Afghan control until 1992, when the Taliban took control of the airport, the city and the country.

The Taliban were driven from power by Operation Enduring Freedom.

Current Status



Operation Enduring Freedom continued until the end of 2014. Following that, Operation Resolute Support took over.



Aircraft Types

With a NATO military base on the north side and civilian airlines, aid agencies and Afghan National Air Force on the south, there are a wide variety of aircraft types, both rotary-wing and fixed-wing.

Bird strike prevention ISAF Afghanistan

2008 Bird-Strike Prevention Report




14 March – 4 April 2008

Albert de Hoon MSc
Bird strike ecologist
Flight Safety Department, RNLAf HQ



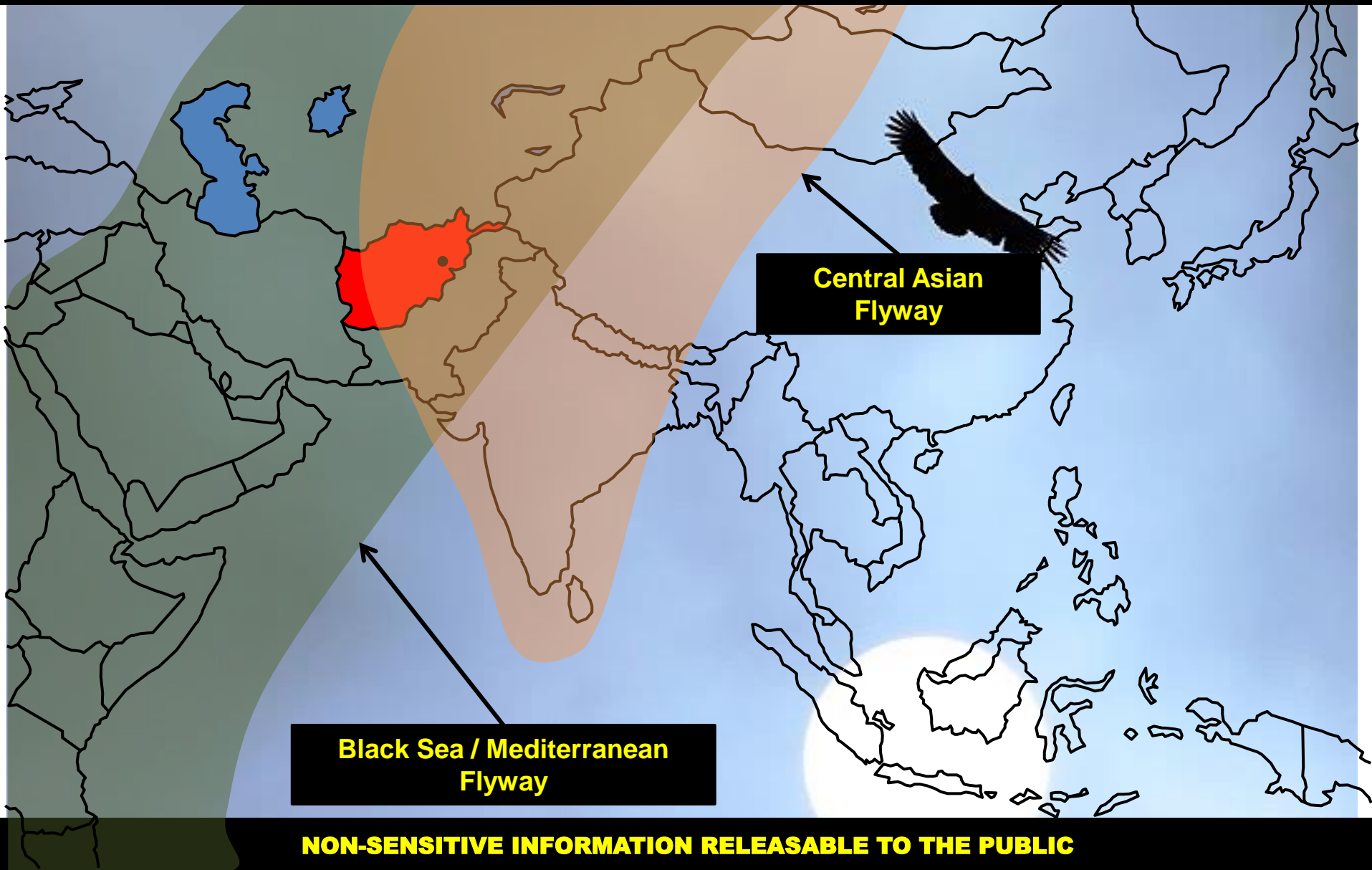
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Problems

A photograph of a dead bird, possibly a sparrow, lying on a light-colored surface. A ruler is placed horizontally next to the bird for scale. To the left of the bird is a small white tag with handwritten text. In the upper left corner, there is a clear plastic bag and a dark object, possibly a container or part of equipment. The background is a light blue surface.

Severe restrictions on equipment and spares
Lack of information on wildlife / strikes
Access restrictions on some areas
Poor quality vegetation cover
Cultural restrictions

Flyways





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Kabul Creek



Altitudinal Migration and SNIC Operations



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Movement Restrictions

Security considerations mean that we are not permitted outside the perimeter fence of the airport. Therefore, all active and passive control can only be carried out on the airport itself.



JT9D-7R4D

Lack of determination to
address the problems –
common to many airports.
Very limited budget.



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Information

Most of the information on wildlife species in Afghanistan is out of date.



Equipment



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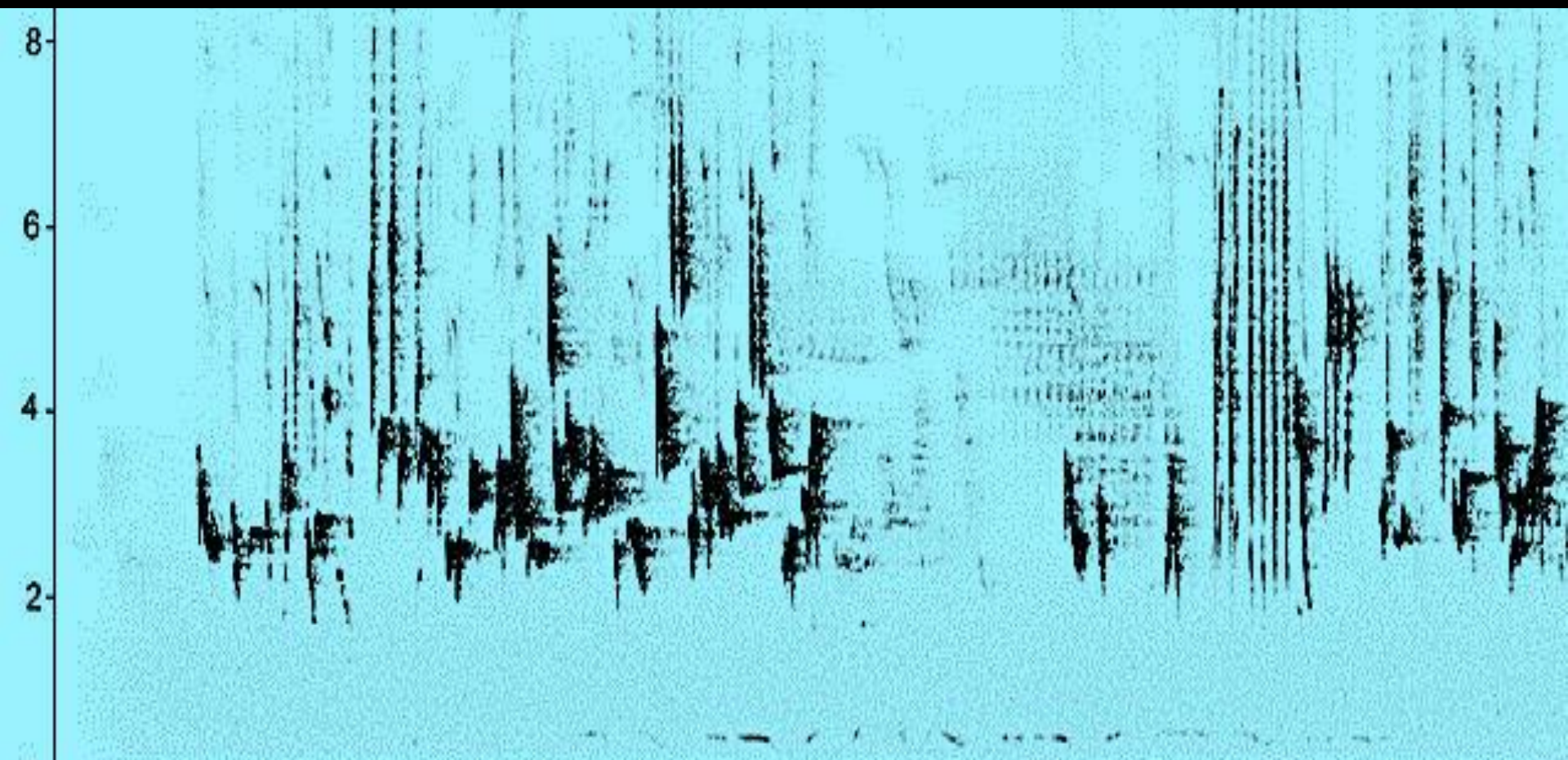


The tactical aircraft operating at Kabul carry flares for decoying missiles. If lasers are detected, flares are ejected automatically.

Bio-acoustics

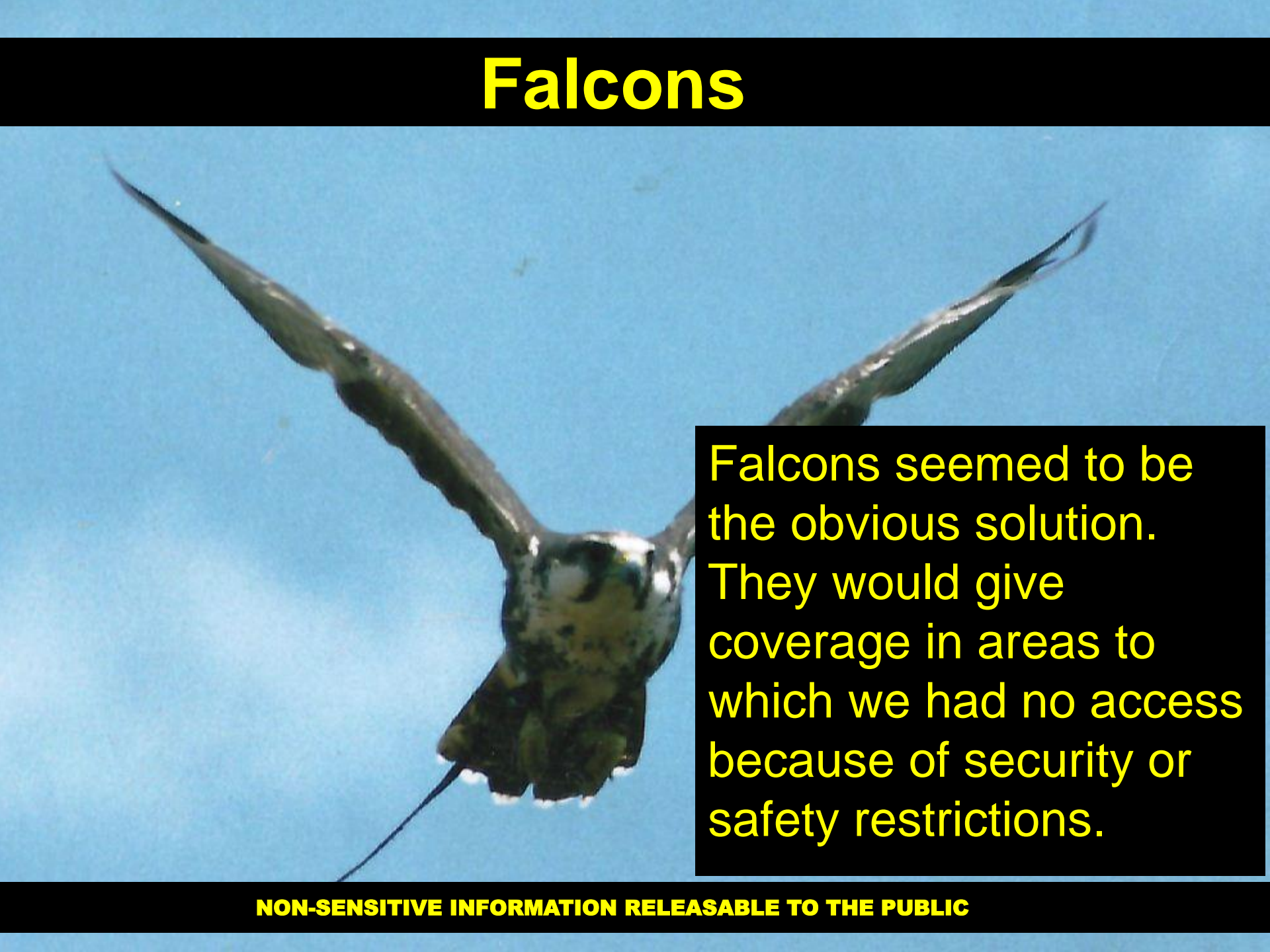
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There are 498 species of birds in Afghanistan. Current bio-acoustic systems have the calls of five of these.



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Falcons

A photograph of a falcon in flight against a clear blue sky. The falcon is seen from below, with its wings spread wide, showing dark feathers on the underside. Its head is turned slightly to the right, and its sharp talons are visible. The background is a solid, clear blue sky.





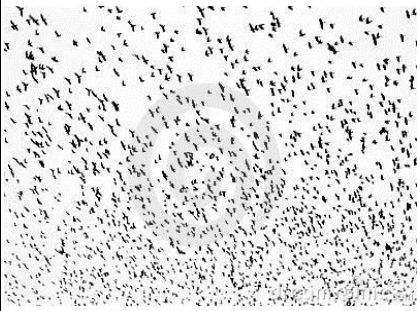


Falcons seemed to be the obvious solution. They would give coverage in areas to which we had no access because of security or safety restrictions.

Kabul Airport

Passive Bird Deterrence



Vegetation
Removing perching
places
Reducing larger species
Reducing insect numbers
Education
Changes to procedures
Forecasting

		Small birds (Swallow, Sparrow, Wagtail)	Medium-Sized Birds (Plover, Gull, Crow)	Large Birds (Stork,Vulture, Goose)
		> 75 grams 	76 - 700 grams  	701 grams + 
	Large / Very large numbers or flocks	MODERATE High probability of birdstrike Possibly damaging	SEVERE High probability of multiple birdstrike. Likely to be damaging	SEVERE High probability of multiple birdstrike Likely to cause significant damage
	Medium numbers	LOW Medium likelihood of birdstrike Not likely to be damaging	MODERATE Medium probability of birdstrike Quite possibly damaging	SEVERE High possibility of birdstrike Likely to cause damage
	Small Numbers / Individual Birds	LOW Low probability of birdstrike Not likely to be damaging	LOW Low probability of birdstrike. Potentially damaging if does occur	MODERATE Low likelihood of birdstrike. Probably damaging if it does occur

The vegetation in 2010 comprised primarily Camel Thorn, with little grass. There were occasional other weeds, generally 'crowded out' by the Camel Thorn.



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The vegetation was reduced to less than 10 cm. over the entire airfield. This denied cover for small mammals.



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**Redundant equipment
has been moved.
Other equipment has
been fitted with anti-
perching spikes.**

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Ltl Acorn

○ 062°F 017°C

08.25.2014 05:56:18



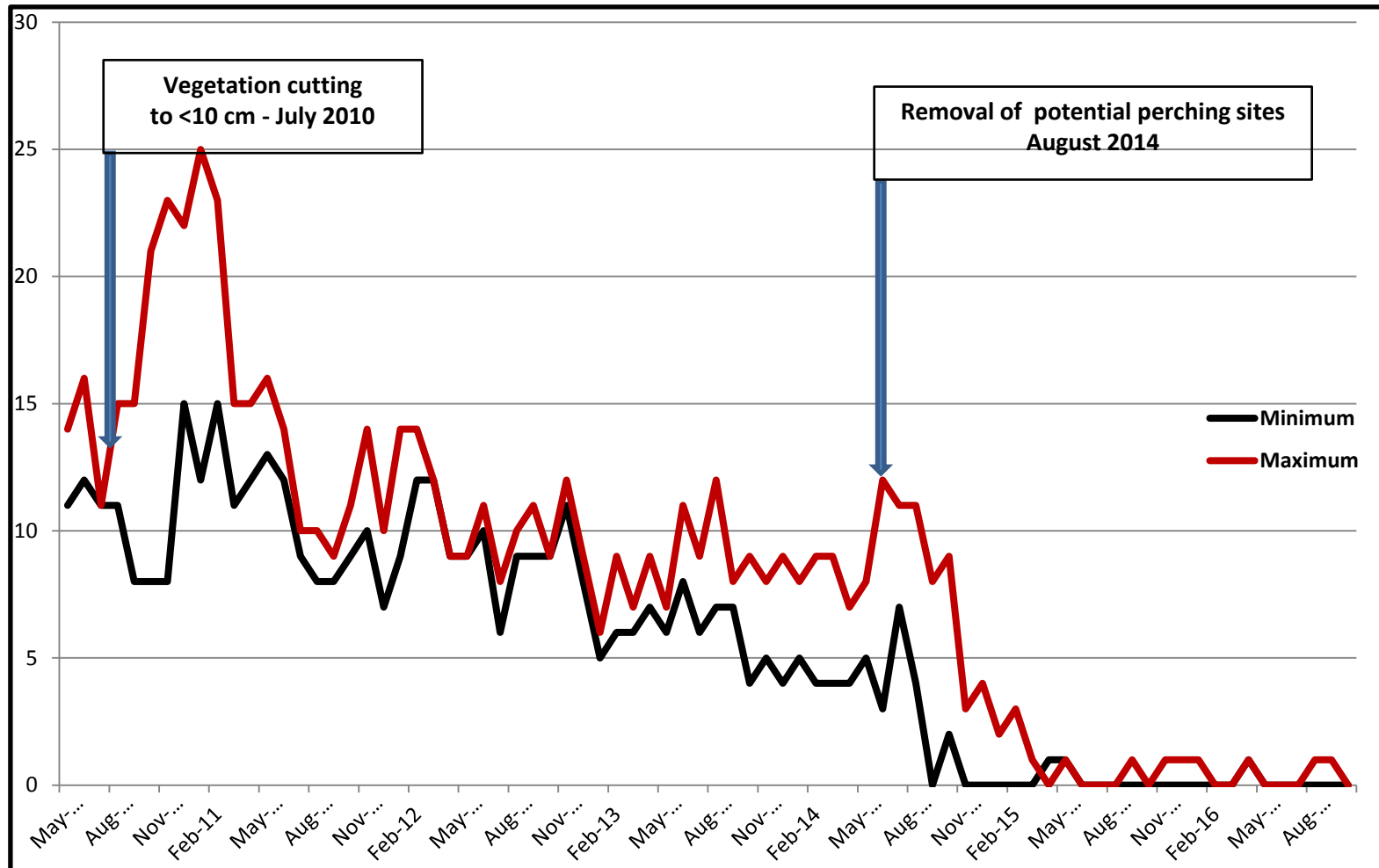
Unused Equipment = Perching Sites



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Daily Sightings

Diurnal Raptors Over 1.0 kg



Insect Reduction



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Swing-fogging



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Insects – Desert Wood-louse



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Dogs

A serious flight safety hazard is the number of dogs on the airfield.



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ICAO and Kabul Airport



ICAO Annex 14, 5.19.1.f

The aerodrome site should be fenced to limit the possibility of mammals on the airfield ...



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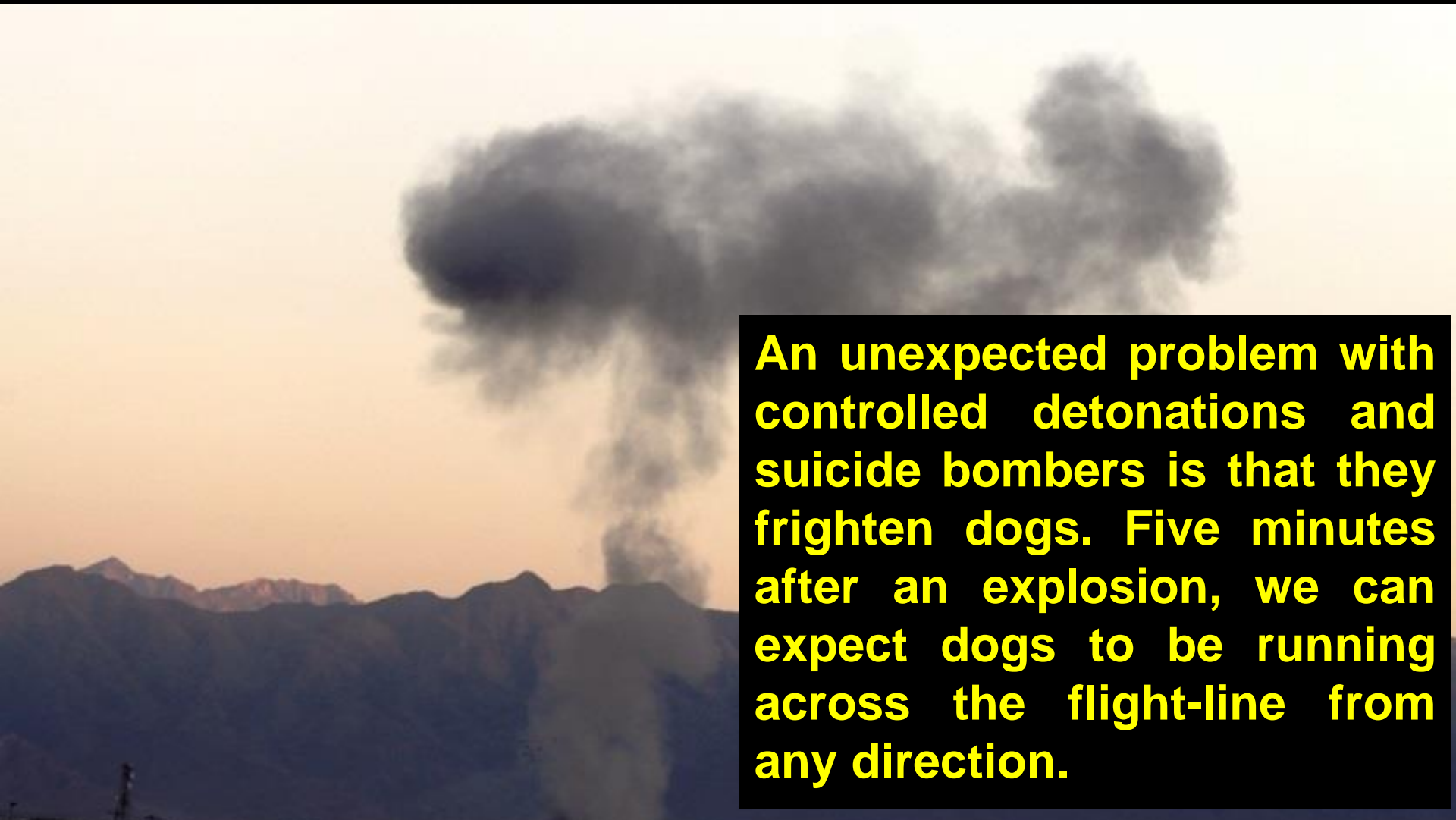
Contract Problems

We have traps and nooses for catching dogs.



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Controlled detonations / suicide-bombers



An unexpected problem with controlled detonations and suicide bombers is that they frighten dogs. Five minutes after an explosion, we can expect dogs to be running across the flight-line from any direction.



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(077°F 025°C

(107°F 042°C

The Future?



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Questions / Comments?



Anish Tamang
Peter Jarman

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