

# The Snowden revelations, five years on

Tom Leinster  
Edinburgh

These slides: [on my web page](#)

*The leak*

# Background

# Background

- **GCHQ**: Government Communications Headquarters, UK intelligence agency

# Background

- **GCHQ**: Government Communications Headquarters, UK intelligence agency
- **NSA**: National Security Agency, US intelligence agency

# Background

- **GCHQ**: Government Communications Headquarters, UK intelligence agency
- **NSA**: National Security Agency, US intelligence agency
- GCHQ and NSA work very closely together, and also with CIA, MI6, US and UK military, police, etc.

# Background

- **GCHQ**: Government Communications Headquarters, UK intelligence agency
- **NSA**: National Security Agency, US intelligence agency
- GCHQ and NSA work very closely together, and also with CIA, MI6, US and UK military, police, etc.
- **The Heilbronn Institute**: GCHQ's academic mathematical brand.

## Edward Snowden's leaks

Former IT professional for CIA and NSA.

In May 2013, leaked many thousands of classified documents to journalists.



# Means of mass surveillance

# Means of mass surveillance

- Email

# Means of mass surveillance

- Email
- Web browsing

# Means of mass surveillance

- Email
- Web browsing
- Phone calls

# Means of mass surveillance

- Email
- Web browsing
- Phone calls
- Text messages

# Means of mass surveillance

- Email
- Web browsing
- Phone calls
- Text messages
- Skype calls

## Means of mass surveillance

- Email
- Web browsing
- Phone calls
- Text messages
- Skype calls
- Bank transactions

## Means of mass surveillance

- Email
- Web browsing
- Phone calls
- Text messages
- Skype calls
- Bank transactions
- Physical location

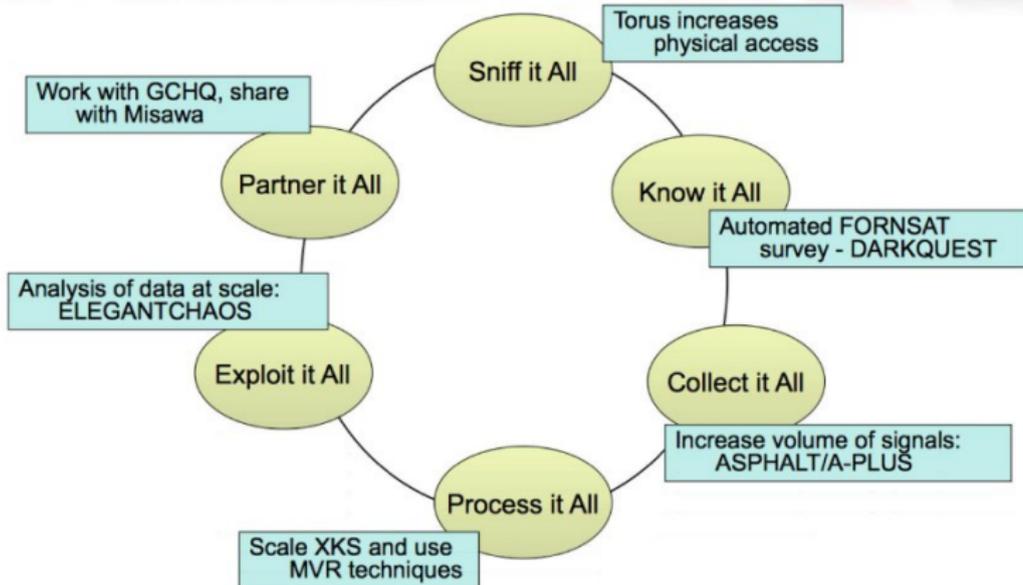
# Means of mass surveillance

- Email
- Web browsing
- Phone calls
- Text messages
- Skype calls
- Bank transactions
- Physical location
- ...

# NSA/GCHQ overarching philosophy

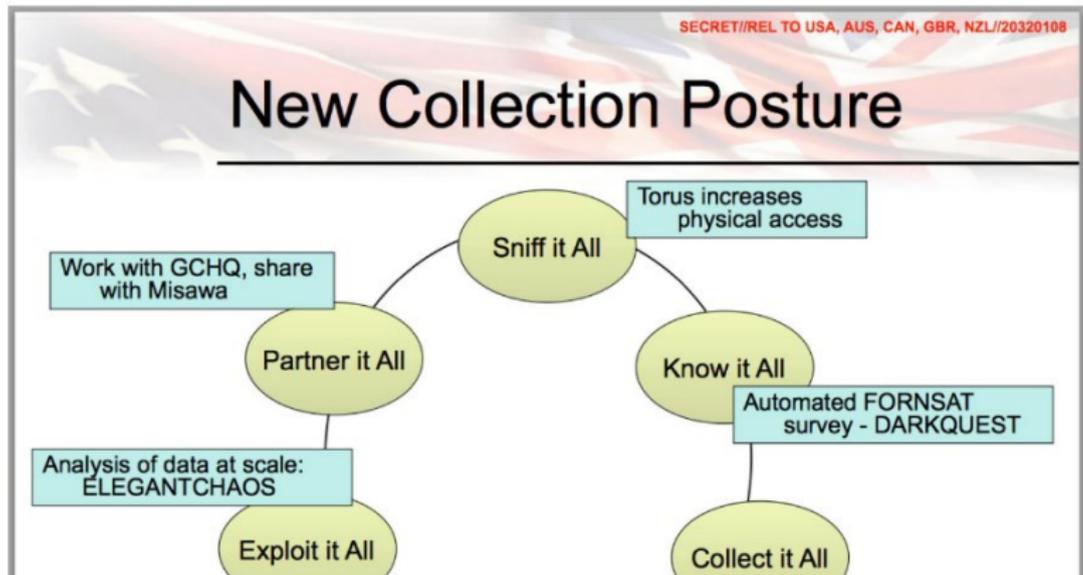
SECRET//REL TO USA, AUS, CAN, GBR, NZL//20320108

## New Collection Posture



SECRET//REL TO USA, AUS, CAN, GBR, NZL//20320108

# NSA/GCHQ overarching philosophy



In extremis, it has been possible to read someone's letter, to listen to someone's call, to listen in on mobile communications. The question remains: are we going to allow a means of communications where it simply is not possible to do that? My answer to that question is: no, we must not. —David Cameron, 2015

# UK oversight of GCHQ

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

Certainly.

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

Certainly.

And you accepted what they had to say?

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

Certainly.

And you accepted what they had to say?

Certainly.

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

Certainly.

And you accepted what they had to say?

Certainly.

Is that it?

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

Certainly.

And you accepted what they had to say?

Certainly.

Is that it?

Certainly.

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

Certainly.

And you accepted what they had to say?

Certainly.

Is that it?

Certainly.

Just a discussion?

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

Certainly.

And you accepted what they had to say?

Certainly.

Is that it?

Certainly.

Just a discussion?

Certainly.

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

Certainly.

And you accepted what they had to say?

Certainly.

Is that it?

Certainly.

Just a discussion?

Certainly.

And that's the way you were satisfied that there was no circumventing UK law. You went to see them, you sat round the table, you had a chat?

## UK oversight of GCHQ

Intelligence Services Commissioner Sir Mark Waller, on hearing the Snowden revelations, went to see GCHQ and satisfied himself they were unfounded.

At the Home Affairs Select Committee, questioned by Keith Vaz MP:

Keith Vaz MP: And how did you satisfy yourself? It seems from your comment that you had a discussion with them.

Sir Mark Waller: Certainly.

You heard what they had to say.

Certainly.

And you accepted what they had to say?

Certainly.

Is that it?

Certainly.

Just a discussion?

Certainly.

And that's the way you were satisfied that there was no circumventing UK law. You went to see them, you sat round the table, you had a chat?

They have had to make out their case . . .  
and I have absolutely, clearly, accepted it.

## *The reactions*

# Media reaction

## Media reaction

# **NSA collecting phone records of millions of Verizon customers daily**

**Exclusive: Top secret court order requiring Verizon to hand over all call data shows scale of domestic surveillance under Obama**

## Media reaction

**GCHQ**

### **GCHQ taps fibre-optic cables for secret access to world's communications**

**Exclusive: British spy agency collects and stores vast quantities of global email messages, Facebook posts, internet histories and calls, and shares them with NSA, latest documents from Edward Snowden reveal**



**MASTERING THE INTERNET (MTI)**



**ds of  
ers daily**

**a to hand  
ce under**

# Media reaction

## GCHQ

### GCHQ taps fibre-optic cables for access to world's comms

Exclusive: British spy agency collects vast quantities of global email messages, Internet histories and calls, and shares them with other agencies, documents from Edward Snowden reveal



## The NSA files

### Optic Nerve: millions of Yahoo webcam images intercepted by GCHQ

- 1.8m users targeted by UK agency in six-month period alone
- Optic Nerve program collected Yahoo webcam images in bulk
- Yahoo: 'A whole new level of violation of our users' privacy'
- Material included large quantity of sexually explicit images



▲ The GCHQ program saved one image every five minutes from the users' feeds. Photograph: Chris Jackson/Getty

# Media reaction

## GCHQ

**GCHQ taps fibre-optic cables for access to world's comms**

**Exclusive: British spy agency collects quantities of global email messages, intercepts his documents**

## The NSA files

**Optic Nerve: millions of Yahoo webcam images intercepted by GCHQ**

- 1.8m users targeted by UK agency in six-month period alone
- Optic Nerve program collected Yahoo webcam images in bulk
- Yahoo: 'A whole new level of violation of our users' privacy'

**Exclusive: Snowden Docs Show UK Spies Attacked Anonymous, Hackers**

A secret British spy unit created to mount cyber attacks on Britain's enemies has waged war on the hacktivists of Anonymous and LulzSec, according to documents taken from the National Security Agency by Edward Snowden and obtained by NBC News.

The blunt instrument the spy unit used to target hackers, however, also interrupted the web communications of political dissidents who did not engage in any illegal hacking. It may also have shut down websites with no connection to Anonymous.

▲ The GCHQ program saved one image every five minutes from the users' feeds. Photograph: Chris Jackson/Getty

# Media reaction

## Revealed: how US and UK spy agencies defeat internet privacy and security

**GCHQ**

**GCHQ  
access**

- NSA and GCHQ unlock encryption used to protect emails, banking and medical records
- \$250m-a-year US program works covertly with tech companies to insert weaknesses into products
- Security experts say programs 'undermine the fabric of the internet'

**Exclusive: Bulk  
quantities of  
his  
doc**

- **Q&A: submit your questions for our privacy experts**

**Exc  
Spic**



▲ Through covert partnerships with tech companies, the spy agencies have inserted secret vulnerabilities into encryption software. Photograph: Kacper Pempel/Reuters

engage in any illegal hacking. It may also have shut down websites with no connection to Anonymus.

**ns of Yahoo  
intercepted by GCHQ**

**y in six-month period alone  
Yahoo webcam images in bulk  
ation of our users' privacy'**

**Show UK  
is, Hackers**

▲ The GCHQ program saved one image every five minutes from the users' feeds. Photograph: Chris Jackson/Getty

# Media reaction

Revealed how US and UK agencies

**GCHQ**

**GCHQ  
access**

**Exclusive: B  
quantities of  
his  
doc**

**Exc  
Spic**

A  
h  
d  
a  
T  
in  
eng

**Data protection**

## UK gathering secret intelligence via covert NSA operation

**Exclusive: UK security agency GCHQ gaining information from world's biggest internet firms through US-run Prism programme**



connection to Anonymous.

▲ The GCHQ program saved one image every five minutes from the users' feeds. Photograph: Chris Jackson/Getty

# Media reaction

Revealed how US and UK spy agencies

GCHQ

GCHQ  
access

Exclusive: B  
quantities of  
his  
doc

Exc  
Spic

A  
h  
d  
a  
T  
in  
eng

connection to Anonymous.

**The Guardian**

## Guardian and Washington Post win Pulitzer prize for NSA revelations

Pair awarded highest accolade in US journalism, winning Pulitzer prize for public service for stories on NSA surveillance



▲ The GCHQ program saved one image every five minutes from the users' feeds. Photograph: Chris Jackson/Getty

# Media reaction

Revealed how US and UK intelligence agencies

GCHQ

GCHQ  
access

**The Guardian**

## Guardian and Washington Post win Pulitzer prize for NSA revelations



, winning  
NSA



the users' feeds. Photograph: Chris Jackson/Getty

*Why did the math world react like  
that?*

# The bargain

Glenn Greenwald:

[There is a] bargain that is offered in all political cultures. . . that essentially says: if you make yourself completely unthreatening to what it is that we in power are doing, we will promise you that you will more or less be left alone and unbothered. If you just end up being a submissive citizen who acquiesces to what it is that we want to do and don't impede what it is that we want to do in any way, you don't have to worry—you will more or less be left alone.

*Why is the intelligence community  
so patronizing?*

*What's happened since*

## GCHQ/Heilbronn's reputation-laundering



# GCHQ/Heilbronn's reputation-laundering



# The power of grassroots action

Margaret Mead:

Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has.