



**Welcome
to
MSSL**

MSSL: Department of Space and Climate Physics University College London

UCL context:

- 9th and 7th best university in the world
2007 and 2008
(Times Higher Education Supplement)
- 22nd best in the world in 2008 and 3rd best in
Europe (Shanghai Jiao Tong University ranking)
- Second most productive European university
(after Cambridge) and the third most highly
cited in 2007
(Centre for Science & Technology Studies,
Leiden University)
- 20 Nobel Prize winners (staff and alumni)



UCL Today

Based in London in Gower Street (near to British Museum)

- 8 Faculties and 72 Departments
- >8000 academic and research staff
- 22,000 students from 140 countries
- its own theatre, museums and art collections



The Mullard Space Science Laboratory

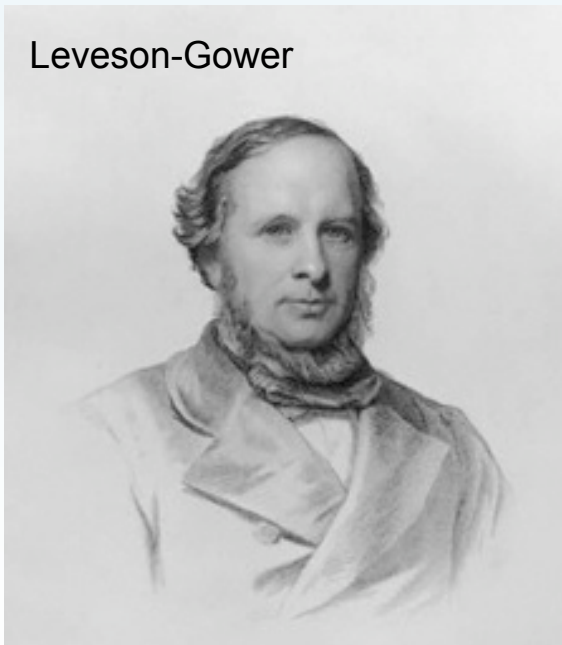
- Space Group founded at UCL in 1953 using sounding rockets for upper atmosphere research.
- In 1965 Mullard Ltd made a donation to UCL to establish the Mullard Space Science Laboratory. The site in Holmbury St Mary was purchased, renovated and formally opened in 1967.
- The UK's largest university-based space research group
- Many UK and international leading figures in space science are MSSL alumni
- Involvement in most X-ray astronomy satellites:
Ariel (UK) 1,5,6; Copernicus (OAO-3); EXOSAT; ROSAT; XMM-Newton; INTEGRAL; Swift

Holmbury House

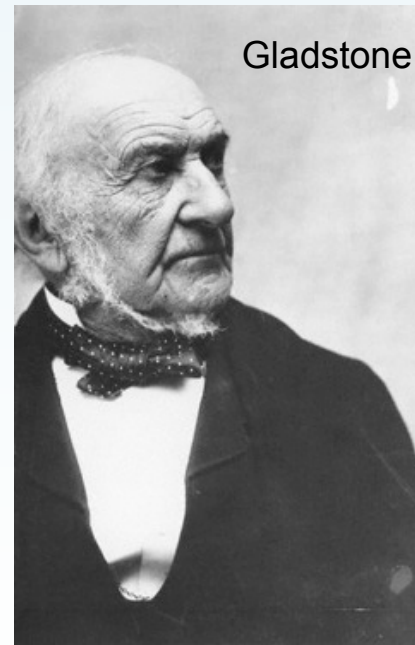
- Holmbury House was built for the Hon. Frederick Leveson-Gower in 1870. The architect may have been George Edmund Street. It replaced an old farmhouse here called Deacons, where the author Ann Marsh-Caldwell lived (records of Dekens go back to 1367)
- Leveson-Gower was a significant figure in Whig (Liberal) politics and was friendly with Gladstone who visited Holmbury House frequently. Gower Street in London (UCL's address) is named after his great aunt Elizabeth



Leveson-Gower

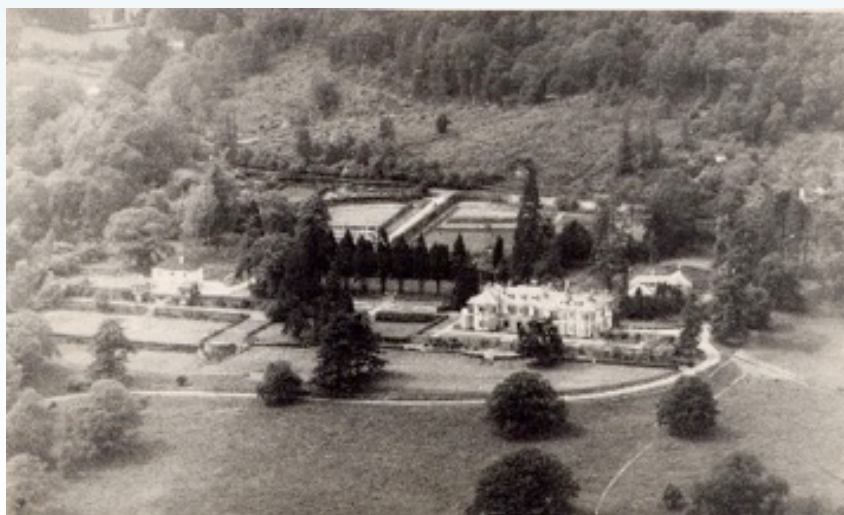


Gladstone



Holmbury House

- The house was sold to
 - Sir James Stevenson in 1919 and then to
 - Arthur Ernest Guinness of the brewing family who lived here through the 1940s
 - and then to the Maharaja of Boroda
- From 1950-1965 the house was used as a school for disabled children (the Salmon's Cross School)



MSSL Research Groups

MSSL has a long and distinguished record of space projects with ESA, NASA, USSR/Russia, Japan, China and India:
MSSL/UCL currently has 15 instruments operating on 10 satellites

MSSL is a unique interdisciplinary department within University College London:

- close coupling between space science and engineering disciplines
- several research groups all linked by the common theme of access to space:

Astrophysics

Solar/Stellar Physics

Space Plasma Physics

Climate Extremes

Detector Physics (cryogenics)

Planetary science

Theory

Making research happen...

MSSL also builds the satellite instruments that we use for most (but not all) of our research:

- mechanical & optical
- electronics
- software
- organising it all
- testing & calibration



Current operating projects

- Hinode – EIS
- Hinode – FPP
- SOHO
- Cluster - II
- Double Star
- Cassini
- Mars Express
- Venus Express
- INTEGRAL
- Swift
- XMM-Newton OM
- XMM-Newton RGS



Future projects

- Astrosat
- EXO Mars
- Gaia
- James Webb Space Telescope
- Herschel

plus ESA Cosmic Vision:

- Solar Orbiter
- IXO
- Plato
- CrossScale
- Laplace
- Euclid

