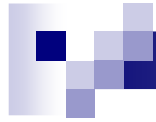




***European Dark Skies
Symposium - Portsmouth
16th September 2006***

Robert Key MP



***Making it happen – the
political imperative***



Parliament

**The Science and Technology Select Committee Report
– Light Pollution and Astronomy, 2003**

- ***Impact on UK astronomy?***
- ***Are planning controls strong enough?***
- ***Are controls applied and enforced?***
- ***Is light measurable in such a way as to make legally enforcement possible?***
- ***Do we need more controls on lighting design?***



The Science and Technology Select Committee Report – Light Pollution and Astronomy, 2003

- ***No world-class optical telescopes in UK***
- ***Science Budget spends over £50m a year on operational telescopes in Australia, La Palma, Hawaii and Chile***
- ***Amateur astronomy is important – near-earth objects, asteroids, comets, supernova, variable stars***
- ***The Milky Way only visible from 30% of UK on a good night. Not just a UK problem***
- ***Children should study the night sky ‘live’ not just on a computer link***
- ***Space study encourages science in schools – and universities***



Recommendations to Government

- ***Update lighting guidelines for roads***
- ***New planning rules – light trespass to be a statutory nuisance***
- ***Special protection for observatories***
- ***Sky glow and glare affect us all and lower the quality of life – international action on vapour trails***



Government response

- ***Trunk roads & motorways upgrading to high-pressure sodium and Full Cut Off lanterns***
- ***Light pollution is a statutory nuisance – Clean Neighbourhood & Environment Act***
- ***UK will pay £40m (20%) towards Extremely Large Telescope through European Southern Observatory. Location – La Palma, Chile, Morocco, Argentina, Australia – factors include light pollution & proximity to high-volume flight paths. Decision after 2008***



Government response continued

- ***Aviation vapour trails climate change research – radiative forcing. Tyndall Centre for Climate Change Research - unchecked aviation growth could take up entire emissions space of EU under Emissions Trading Scheme by 2040.***
- ***Institute for Aviation & the Environment (Cambridge)***
- ***NERC Centres for Atmospheric Science (Reading)***
- ***EPSRC, UMIST, EU LIFE programme***



Local Government Response

- ***Planning Authority awareness – applications referred to trained staff***
- ***Purchase and use of light meters – most complaints about security lights***
- ***Sensitivity to floodlighting of buildings, sports centres, car parks, hospitals***
- ***Enforcement powers – nuisance or annoyance? Courts must decide***
- ***Good lighting makes roads and footpaths safer – and deters crime.***
- ***Bad lighting is unsafe and encourages crime.***



Energy waste, the lighting industry and the taxpayer

- ***The Highways Agency (Dept for transport) controls 145,000 street lights***
- ***Local Councils control 4,355,000***
- ***How much does it cost you? Ask your Council...***
- ***A 1kw light left on 12 hours a night causes 3.5 tonnes of carbon emissions a year***
- ***A 100w bulb for 12 hours every night produces 0.35tonnes a year***
- ***The lighting industry says a 150w security light is adequate***



Our heritage...

***“But I am as constant as the northern star,
Of whose true fixed and resting quality
There is no fellow in the firmament...” Shakespeare,
Julius Caesar, III.i.60***


***“It is the stars,
The stars above us, govern our conditions...” Ibid, King
Lear IV.iii.34***



Our heritage continued

***“the night sky is one part of our environment we have shared with all cultures in all periods of human history”.
Prof. Sir Martin Rees, Astronomer Royal***

“Astronomy is the oldest science, with roots extending more than five thousand years to the building of Newgrange, Stonehenge and similar structures. It is a key part of mankind’s cultural inheritance which attracts people towards science and into a scientific way of thinking ... to draw a veil across this aspect of humanity’s cultural heritage ... is to deprive us of a source of inspiration that has operated for thousands of years”. Prof. Mark Bailey, Armagh Observatory



It is not just astronomers who will be the losers if light pollution is unchecked. As parents, teachers, energy users, the lighting industry, journalists, politicians and citizens – we are all in this together.

I will make it an election issue.

What will YOU do about it, personally?