

ROE/UKATC chronology and artifact list. This version 12_2025

Date	Event	Instrument	Function	What Survives? (locations at about Sept 2023) and other available material	Reference code
1880	Site testing on Blackford Hill			ROE photo 7900201	JF385
1913	Suffragette Bomb at observatory			Photograph of bomb damage and message	JF387
2 November 1926	Grubb-Parsons send catalogue to ROE soliciting more business.		Includes images of ROE and instruments	Catalogue and cover letter in Annex J	
1935ish			Various photos of buildings and instruments, some undated	Photo album in Library Annex J	
1940s?				Box of mirror blanks from Grubb-Parsons in Library Annex	
2 March 1650	Kinethedolite, ex WW2 Germany and RAE arrive at ROE and installed on roof 3 March			Notes in notebook by B McInnes	
October 1960	ROE Satellite Tracking Section formed			STS report 50	
1 December 1960	Work begins on Building at Earlyburn			Notes in notebook by B McInnes	

2 August 1961	Kinetheodolite 40/771 arrives at Earlyburn			Notes in notebook by B McInnes	
October 1961	Satellite tracking at Earlyburn Outstation (starts)		Optical, satellite tracking until mid 1970's	Notes of observing log until 1965 in notebook by B McInnes. Building outside Eddleston. Privately owned.	
1962	Seismic vault constructed during construction of new university building			Photograph	JF370
Late 1962	Replacement Kinethoedolite 40/873 installed at Earlyburn			STS Report 18 4-Sep-1963. Also ROE report 42 = Phil Trans Roy Soc 262 pp 32-40 1967	
1963	16 inch Photometric Telescope and new University Building (quadrangle and lecture theatre) opened by Lady Tweedsmuir			Video of opening event from 16mm original. Photographs. Sky and telescope article	JF368
1 April 1965	SRC set up, ROE becomes part of SRC				
1 July 1965	Royal Visit by Queen Elizabeth II		Visit	Slides, Photos. Signed visitors book, Old	JF366 and JF365 and loose items

				newspapers, programme etc in Library Annex J. Pathe News clip	
May,June 1966	Hewitt camera set up at Earlyburn		Foundations May 1966, Camera installed by July 1966	Slides from Bennet McInnes	
4 June 1966	Astronaut John Glenn Visits		His capsule was at the NMS in town	Copy of autographed photograph, Also McInnes slide RO16. Signature in visitor book	
22 July 1966	Ordance Survey takes Aerial photos of Earlyburn Site showing Hewitt camera and kinethedolite Buildings			Copy of Photograph. Details in STS report number 59	
23 July 1966	King Hussein of Jordon Visits		Visit	McInnes Slide RO17 JHB Slides Visit schedule	JF367
1966	Hewitt Schmidt Camera installed at Early Burn. Previously at Malvern		Bruik Book pp15/116		
26 October 1967	Outstation at Monte Porzio, nr Rome opens	16/24in Schmidt	Optical, sky survey	Building near Rome? Manual in ROE library Annex J. Monte Porzio	JF321, JG508

				visitor book.	
1967	Establishment of Dept of Astronomy and BSc in Astrophysics			Peter Brand timeline	
1967	20inch telescope for Astronomy dept installed				
5 November 1967	Turkish president Visits			McInnes Slide RO27. Photos with Skylark Payload. Signature in visitor book	JF358
1967	Galaxy Machine operational	GALAXY	Optical Plate Scanner. GALAXY = General Automatic Luminosity And X-Y		
Late 1967	Brick building with dome built at Earlyburn. Known as 1968 building			STS Memo dated 26-July-1968	
3 March 1969	Hewitt camera becomes operational at Earlyburn			STS memo dated 8 -Jan-1970	
1969	2m Michelson Interferometer installation starts at Monte Porzio		Bruik Book p114		
1970 ish	The GALAXY machine (General Automatic Luminosity And XY coordinate measuring machine) was developed jointly by ROE and Faul Coradi (Scotland) Ltd. GALAXY was a high speed system for locating star images on photographic plates and measuring their positions, diameters and densities.			Bill Sampson Notes	
1970	UK Schmidt Telescope Unit created at		Objective, build and operate UKST in Australia	Plates in library	

	ROE			annex, some films, light tables	
13 August 1970	IAU colloquium on Automation in Optical Astrophysics				Signatures in visitor book
30 September 1970	Last ROE Skylark Rocket Launch. Woomera, Australia	R100	Diffuse UV sky brightness. 1450-3200A. Stellar fluxes 2200 and 2600A. Success	Nosecone in VC. Payloads in store. Some stuff in NMS store?	
April-Nov 1971	Site testing at Castlegrande, Italy			Scans of slides from Peter Moore	
12 March 1972	ESRO TD-1A Satellite launched carrying S2/68 Instrument	S2/68	Belgian/UK UV All sky Survey. Absolute ultraviolet flux distribution between 2740A and 1350A of point sources. See also notes provided about Nandy's career	Witness pieces found in 2023	
1972	Crawford books moved from main library to special room. Mary Smyth in charge		Opened 3 rd November by Earl of Crawford at event celebrating 150 years of ROE Bruik Book p138	Unsigned Note in archive. Event brochure	
1973	UK Schmidt Telescope Opens in Australia	48 inch Schmidt	Optical, sky survey	As Above. Plates in annex. Film Atlas donated to National Archives?	
1973	Earlyburn Outstation closes			(Kinetheodolite once in VC has vanished)	
1973	<u>Malcolm Smith was first involved with ROE in 1973 while employed at</u>		.	MJS e-mail	

	<u>RGO by the (then) SRC for 6 months as a consultant to write the scientific case - with Professor Redman at Cambridge - for what are now the UK telescopes in La Palma</u>				
Late-Jan to Feb 9 th 1974	McInnes Trip To Hawaii			Diary 'A Long Way to Go'	
17 April 1974	UK Infrared Telescope project approved		ROE leads construction of 3.8m IR telescope in Hawai'i	Telescope Model in library having been moved from East dome and IfA foyer	
May 1974	TD-1A satellite ceases operations				
	S2/68 Reults		Spiral bound Book		JF354
June 1974	(DES) approval for the construction of the lightweight, thin-mirror UKIRT 3.8m infrared telescope given in June 1974. Gordon Carpenter was appointed Project Manager and Professor Jim Ring of Imperial College London was appointed the Project Scientist and chair of the UKIRT Steering Committee.				
1974	COSMOS machine operational. First publishable measurements in late 1974.	COSMOS	Optical Schmidt plate scanner, upgrade of GALAXY. Bruik Book p123	To NMS?	
1974-75	NHO Site testing project		Hawaii (Feb 74 to May 75), Madeira (Jan 74 to April 75) Izana (Jan-Nov 192 and Feb-Sep 75),	Many slides and folders of notes,	Q j RAS 22 pp 266-271 1981

			La Palma (Dec 74 – Nov 75) Cape Verde Islands	reports, diaries donated by B McInnes	
Jan-April 1975	Site testing in Hawaii		Storms etc	Extracts of Letters from W Macrae to Bennet McInnes	
8 May 1975	Fatal Accident to Andrew Carter of NHO site testing team In Madeira			Report by B. McInnes on Accident	
1 Oct 1975	Professor Bruck retired on 30 September 1975 and was succeeded by Professor Reddish on 1 October 1975.			RDW notes. Also Peter Brand timeline. Scan of SRC Press notice. Signatures in visitor book	
1 Oct 1975	Announced by VCR at ROE Staff Meeting on October 1:		<p>ROE Secretary no longer seconded from Scottish Office but an ROE appointment, Bennett McInnes. Other changes announced that day:</p> <p>Wednesday afternoon public tours of the ROE to cease; Jim Campbell charged with building a Visitor Centre, which would have a separate entrance to keep visitor traffic away from ROE work.</p> <p>The Astronomer Royal's house to become the Management Building, where VCR would have his management office (retaining original Director's office for research) alongside ROE</p>	PMW notes	

			<p>Secretary, finance staff, etc.</p> <p>ROE staff to move to new offices on Oct 1, e.g. administration staff from rooftop gallery to Clifton Building to make space for proposed Visitor Centre; electronics labs from 1963 building to Villas.</p> <p>Coffee breaks abolished.</p> <p>At the same time, the Schmidt telescope unit, which VCR headed, became part of the ROE. <i>(what was it prior to that?)</i></p>		
Early 1976	Early in 1976 the COSMOS plate measuring machine was made a national facility			RDW notes	
1976 February-March:	1976 February-March: Was there a financial crisis threatening the ROE about this time which was effectively resolved because of the success of the Schmidt telescope?			PMW notes	
August 1976	Visit of Bennet McInnes to Iran regarding site testing.			Folder of Notes and Report by McInnes. Slides in Boxes labelled TX.	
November 1976	Proposal for a UK mm-wave telescope (which became the JCMT)			Proposal	JF329

1975/76	1975/76 was a difficult financial year for ROE and for the Science Research Council (SRC) and this meant serious problems for many aspects of ROE's work, notably delays in recruitment due to centralization of recruitment procedures.			RDW notes	
1975/76	Work on UKIRT instrumentation was getting up to speed during 1975/1976 under the direction of Terry Lee. The sudden death in February 1976 of Gordon Cork, an electronics engineer who had been involved in the UKIRT project since its inception, was a sad event.			RDW notes	
1976	SRC gave ROE the responsibility to operate UKIRT once it was finished.			RDW notes	
March 1977?	With the increased need to put maximum effort into national facilities the outstation at Monte Porzio near Rome, which had been in operation since 1966, was closed down in March 1977 and the staff and equipment returned to the UK.		Progress with the stellar interferometer had been delayed by technical faults and Dr Twiss who had been in charge of the instrument retired in March 1977. Bruik Book p114 says this closes in 1976, but telescope site and Dr Twiss still mentioned in 1976 annual report which ran up to September 1976	RDW notes. JKD Notes and a few slide scans Visitors book in Library Annex Pickering Prism in Box in Library Annex	
1976/77	Progress on the Mauna Kea site of UKIRT and its building was proceeding smoothly as was the work		In April 1977 completion and figuring of the CERVIT thin primary mirror for UKIRT (edge: thickness ratio of 13:1 instead of the usual 6:1)	RDW notes + JKD book/archive notes	JF360

	on the mechanical assembly of the telescope structure at the Sheffield works of Dunford Hadfields Ltd.		was completed at the Newcastle-upon-Tyne facilities of Sir Howard Grubb Parsons & Co Ltd.		
14 January 1977	1977 Jan 14; Talk at RAS (See Obs 97, 153) by Jim Ring on UKIRT,		possible upgrade of primary at cost of £k 12 to improve image quality to 1 arcsec, useful for optical observations, with discussion of altitude working, pointing accuracy, running costs	PMW notes also JKD book and archive	
February 1977	February 1977 saw the first meeting of a new committee, the ROE Establishment Committee (ROEEC), to supersede the former ROE Committee. The function of ROEEC was mainly concerned with the resources of manpower and accommodation needed by ROE to fulfil its responsibilities, specifically to advise both the ROE Director and the Astronomy, Space and Radio Board of the SRC on what these needs were and to ensure as far as possible that these needs were met.		The members were a combination of academics in astronomy, physics and engineering as well as leaders of private companies working in the fields of science and engineering.		
1977	During 1977 the Image and Data Processing Unit (IDPU) set up to operate COSMOS and other measuring machines at ROE and through which university users could request time on these machines, with R.S (Bob) Stobie in charge.			RDW notes	

Mid 1977	ROE consultancy on Site testing in Iraq. First raised January 1975			McInnes Folder of notes and letters	
1 June 1977	1 June 1977 death of Gordon Carpenter, the Project Manager for the construction of UKIRT. In June 1977 Colin Humphries was appointed to oversee the UKIRT construction.			RDW notes + JKD book/archive	
December 1977	First batch of UKIRT telescope components were shipped to and arrived in Hilo mid-January 1978.		By early spring the 80 tonne mechanical structure had been erected by the Dunford Hadfields team at the 4200m summit of Mauna Kea	RDW notes + JKD book/archive. Newspaper clippings	JF361
January 1978	Accommodation was rented in Hilo and ROE construction staff began arriving in Hilo in January 1978.		By mid-1978 ROE staff on the instrumentation and operations teams had started to transfer to the Hilo base.	RDW notes + JKD book/archive	
1978	Hewitt camera moved to Siding Springs		Operated at Siding springs until 1990	Photographs at Siding Springs	JF353
July 1978	Mauna Kea Users Advisory Committee (MKUAC) set up to present a joint approach to the University of Hawaii (UH): The first meeting in July 1978 had representatives from UKIRT, IRTF, CFHT as well as NRAO who were considering erecting a 25 meter millimetre telescope on MKO at the time.		UH had negotiated time on all Mauna Kea these telescopes as part of their agreement to run the site.		

1978	Establishment of MSc in astronomical technology		Largely organised by John Cooke	Peter Brand timeline	
1978	Twin Telescope moved to St Andrews, declared open by Herman Bruck 20 November 1978		Decommissioned about 1992?	Unsigned note in archive	
5 Sept 1978	Visit by Shirley Williams, Secretary of State for Education, – “the good times are over”.			Signatures in Visitor book also Geoffrey Allen (SRC chairman)	
17 October 1978	Professor Reddish announced in an ROE Observatory Notice his decision to resign as Director as of 30 September 1979		He gave as his reasons: (1) the continuing lack of the senior line management appointments which were a prior condition of his acceptance of the post; (ii) the imposition of a Council-wide staffing policy which in his view and experience was damaging to the interests of this Observatory and to the career and promotion prospects of its staff; and (iii) the obstruction and interference by a growing bureaucracy in the Council’s central administration. According to a Nature article on 9 November 1978 this issue came to a head over his attempt to appoint a Head of Technology: Professor Reddish wanted to give the post to an astronomer with some technological experience who could interchange with astronomers at the Observatory’s other telescopes in Hawaii and Australia. SRC administrators on the other hand insisted that the post should go to an engineer. One year on in an article in the	RDW notes and PMW notes	JF362

			<p>Edinburgh Evening News on 4 October 1979 Professor Reddish stated: "There has now been some improvement in the senior staffing situation, but I always said at the beginning that I did not think the SRC could make the basic changes in the administration that would have made it possible for me to stay".</p> <p>PMW asks (Q: Was it (also) refusal of Swindon to allow appointment of Deputy Director that triggered the resignation?)</p>		
Jan 1979	UKIRT First Light.				
		UKT1	IR Photometer: JHKLM + CVF		
		UKT2	IR Photometer: JHKLM + 2.3->4.6 micron CVF		
Jan 1979	Terry Lee succeeds Colin Humphries as UKIRT astronomer-in-charge with David Beattie as Deputy and based in Leilani Street, Hilo			PMW notes + JKD book/archive	
March 1979	UKIRT f/20 coude focus first (and only) light			PMW notes	
April 1979	1st Ukirt Newsletter			PMW notes	
Mid 1979?	UKIRT staff were reluctant to opt for Waimea and in 1979(?) they opted for a base sited in Hilo. PMW wrote to MSL on behalf of			RDW notes + JKD book/archive + PMW notes	

	UKIRT staff requesting re-think of plan to move UKIRT base office from Hilo to Waimea on grounds of better infrastructure in Hilo (airport, harbour, customs port, Hilo Iron Works, etc) and housing and amenities for staff and their families. This was supported by the UKIRT Steering Committee urged on by Ian Robson who had observed in Hawaii.				
July 1979	UKIRT staff list: Mark Bateson, David Beattie, Jack Beentjies, Bryan Bell, Joachim Born, Yolanda Boyce, David Brown, John Clark, Colin Humphries, Terry Lee, Alex McLachlan, Manual Martinez, Alf Nield, Bill Parker, Terry Purkins, David Robertson, Malcolm Stewart, Kent Tsutsui, Rorie Urquart, Pat Wister.			PMW notes	
10 October 1979	10 October 1979 the formal completion of the construction and commissioning program for UKIRT was marked by the official opening ceremony.		Performed by the Duke of Gloucester in the presence of Professor Sir Geoffrey Allen, SRC Chairman, Professor Reddish as well as invited guests and members of the teams who built the facility	RDW notes + JKD book/archive. Photocopy of Press Kit. McInnes Diary Dedication at High Altitude' 2 volumes,	JF357, JF355

				handwritten. Cover 24-Sep-79 to 14-October - 79. Slides RR1 to RR20	
1980		UKT7	L > Q Bolometer		
1980	(i) Dutch involvement in UKIRT was negotiated; (ii) ROE had won the UK nomination to become the European Coordination Facility for the Space Telescope and a final bid was prepared; (iii) the Head of Technology was finally appointed (Malcolm Smith); and (iv) the urgent recruitment of infrared astronomers for UKIRT had finally begun.			RDW notes	
30 September 1980.	Prof Reddish Finally leaves succeeded by Professor Malcolm Longair on 1 October 1980			RDW notes	
1980?	Visitor Centre Opens				
1981-83	CCD Imaging polarimeter		Optical. 512 x 320 CCD see 1983 facilities handbook p14, and 1985 handbook p70		
1980?	ROE Pockels cell Polarimeter		see 1983 facilities handbook p 58		
1980	Malcolm Longair replaces Vincent Reddish as ROE Director				
3rd and 4th February 1981	ROE was visited by the Scientific Evaluation Panel whose task was to select the site of the Space Telescope European Coordinating Facility		The five member panel chaired by Professor Van de Hulst from Leiden was clearly impressed by the quality of the facilities and operations carried out at the ROE and at our	RDW notes	

	between the final contenders of the Institut d'Astrophysique in Paris, the Institute of Space Astrophysics in Rome and the European Southern Observatory in Garching as well as ROE.		overseas sites but in the end the fact of Edinburgh's geographical location may have been the principal factor in their decision to choose ESO. The heaviest snowfall of the winter fell overnight on 3rd February as a result of which the panel was obliged to walk from the Braid Hills Hotel to ROE on the morning of February 4: the rumour that this may have influenced their decision is almost certainly untrue!		
24 April 1981	Visitor Centre Opened by Patrick Moore			Plaque removed when pier demolished. Location not known.	
15+ 16 July 1981	First UKIRT Symposium that was held at the University of Edinburgh Attended by 86 astronomers.		Although common-user instruments were at the time confined mostly to JHK and low resolution CVF spectroscopy between 1 and 5um an impressive range of topics were already being covered from volcanic hot spots on Io to JHK photometry of 3C radio galaxies.	RDW notes	
October 1981	Bennet McInnes visit to Turkey regarding site testing.		This seems to have led to a loan of equipment and testing activities until 1986.	Folder of Notes, Letters and reports by Bennet McInnes. Slides TY1-TY25 and diary 'Tea in Turkey'	

1982		UKT8	N, Q + 10micron CVF		
1982		CGS-1	F/35, Single element InSb detector, spectrometer.		
1982	UKIRT: first remote operations from Hilo (February 24) and the ROE (September 6)			PMW notes	
1982		UKT5	Photometer. InSb detector JHKLL' & M photometry		
August 1982	UKIRT staff list: Sidney Arakaki, David Beattie, Yolanda Boyce, John Clark, George Douglas, Ian Gatley, Tom Geballe, Mel Inouye, Rich Isaacman, Kevin Krisciunas, Terry Lee, Andy Longmore, Anna Lucas, Kenneth Maesato, Manual Martinez, Alf Nield, Patrick Nelson, Verna Oliviera, Bill Parker, Alan Pickup, Charlie Richardson, Mike Santos, Malcolm Stewart, Peter Thanisch, Kent Tsutsui, Jay Tsutsumi, Peredur Williams, Bill Zealey.			PMW notes	
1980's?	SERC, in collaboration with the Netherlands Research Agency ZWO, gave approval for the construction of a 15 m aperture Millimetre Telescope (MT) to be erected on Mauna Kea.		RAL was responsible for its construction (Project Manager, Ron Newport [RAL] and Project Scientist, Richard Hills [MRAO]) which began in 1983,	RDW notes	
		UKT6	Photometer. InSb detector JHKLL' & M photometry + CVF		

January 1983	CGS2 at UKIRT	CGS-2	7 Element Near IR Spectrometer		
1983	UKIRT: acquisition of VAX 11/730 computer			PMW notes	
1983	IRAS Follow up instrument	IRASFU	N+Q 16 elements, Ar doped Si, mapper. NL instrument		
July 1983	UKIRT dome extension progressing			ROE Bulletin notes by JKD	
11 August 1983	Hawaii: new Hale Pohaku lodging facilities dedicated.			PMW notes. JKD Book/archive	
August 1983	John Jefferies leaves IfA. At ROE COSMOS room being renovated			ROE Bulletin notes by JKD	
4-6 October 1983	Edinburgh Star formation Workshop			ROE Bulletin notes by JKD	
24 November 1983	mm-Wave telescope enclosure completed and tested in UK by Robert Watson Ltd of Bolton.			ROE Bulletin notes by JKD	
Late? 1983	A panel was set up by the ASR Division of SERC to make a report in response to the Rayner Review that the SERC should consider whether it needed five sites, especially in the light of the possible disposal at the time of Herstmonceux Castle, Panel chaired by Professor Peter Willmore from Birmingham University visited		In a personal note accompanying the formal papers for the panel Malcolm Longair made clear his views on how problems of Treasury under indexation were eroding the funds for astronomy; and he stressed that, in making difficult decisions, the need to preserve the ability to do new science has to take precedence over institutional arrangements which were relevant to an earlier epoch of	RDW notes	

	ROE on 5 December 1983.		science. In this way the UK can remain a first-ranked power in world astronomy. Similar arguments may certainly have swayed the panel in ROE's favour in the sense that ROE's work had been moving for some time towards the new wavelength frontiers of infrared and mm/sub-mm astronomy thanks to its growing technical expertise.		
March 1984	ASR forward look 1985/6 to 1989/90 (includes Wilmore panel) reports. ASR board will have a reduction in funding leading to staff losses. Little effect on ROE, but RGO told to redeploy 30 staff.			ROE Bulletin notes by JKD	
June 1984	East tower conversion starts. Flood [in downstairs photolabs?] due to burst pipe. UKT9 acceptance tests at ROE by visiting Hawaii staff. FLAIR first light at UKST (4 fibre bundle). MM Telescope/JCMT Carousel delivery after various issues with chartered ship and demands for cash from Captain.			ROE Bulletin notes by JKD	
July 1984	Asteroid 2884 named after Vincent Reddish.			ROE Bulletin notes by JKD	
23 July 1984	JAC Komahana St groundbreaking on 23 July 1984 (photo). See also			ROE Bulletin notes by JKD	

	September ROE bulletin. ISU2 commissioned at UKIRT.				
August 1984	UKT9 commissioning	UKT9	Photometer. InSb detector JHKLL' & M photometry + CVF.		
July 1984	Contract for InSb Array signed with SBRC				
November 1984	Malcolm Smith leaving ROE to replace Terry Lee at UKIRT. Colin Humphries leaves for UKST to become OIC in November. Matt Mountain arrives as research fellow. GTE remote observing advert			ROE Bulletin notes by JKD	
1985		UKT16 '8-Banger'	MNQ photometer. 4 x 2 detectors for mapping		
		UKT10 '2 banger'	JHKL Photometer. 2 detectors		
Jan 1985	Malcolm Smith succeeded Terry Lee as Astronomer-in-charge of UKIRT UKIRT staff list: Sidney Arakaki, Joel Aycock, David Beattie, Gina Bernabe, Yolanda Boyce, Verna Duarte (prev. Oliviera) Ian Gatley, Tom Geballe, Mark Horita, Mel Inouye, Rich Isaacman, Nash Kobayashi, Kevin Krisciunas, Len Lawrence, Terry Lee, Andy Longmore, Anna Lucas, Kenneth Maesato, Manual Martinez, Patrick Nelson, Bill Parker, Gordon Pentland, Alan Pickup, Keith Raybould, Malcolm		PMW asks (why is Malcolm Stewart's name in list ? – he returned to Edinburgh in 1982 or 1983) didn't he go out again for a while ???	PMW notes	

	Smith, Malcolm Stewart, Kent Tsutsui, Jay Tsutsumi, Dolores Walther, Phil Williams, Peredur Williams.				
May 1985	Newspaper articles about RGO/ROE merger and/or merger of both with RAL from April issues of papers. MSL says it is all speculation but outline planning permission sought for extension to west wing.			ROE Bulletin notes by JKD	
28 May 1985	NATO Science committee visit			ROE Bulletin notes by JKD	
Mid-1985	UKT12 Commissioning at UKIRT	UKT12	Sub-mm Bolometer		
June 1985	JCMT Home end set up			ROE Bulletin notes by JKD	
9 August 1985	dedication of new UKIRT base facility off Komohana St			PMW notes	
1986	Bill Duncan project scientist and Ian Robson external project scientist	UKT14	Sub-mm Bolometer. Used UKIRT then moved to JCMT	Was at ROE. In museum now?	
August 1986	Russell Cannon leaves ROE to take up Directorship of the AAO			PMW notes	
29-30 Sept 1986	Symposium to honour Kashi Nandy on his retirement. Papers published in QJ 28, 207-338, 1987; there is also a good (clear) group photograph.		Papers published in QJ 28, 207-338, 1987; there is also a good (clear) group photograph.	PMW notes	
October 1985	Open days to celebrate 20 th			ROE Bulletin	

	anniversary of SRC. Gillian Wright expected on 14 October as a JRF. New photolabs equipment in corridor at base of East tower to be used for Schmidt plate copying working after a bit of a saga of problems with water quality etc			notes by JKD	
Xmas 1985	UKT 14 shipped. Results from FLAIR tests			ROE Bulletin notes by JKD	
January 1985	J Burnell awarded Beatrice M. Tinsley prize by AAS. UKT14 commissioning report.			ROE Bulletin notes by JKD	
May 1986	Russell Cannon made director of AAO. Pat Roche joins as SRF. Newspaper clipping about RGO move to ROE blocked by council declining planning permission to extend site.			ROE Bulletin notes by JKD	
June 1986	Newspaper clipping about council approving land required for RGO to move to ROE. Report of RGO staff visit to Edinburgh/ROE for fact finding about moving here. IRCAM first light in ROE lab.			ROE Bulletin notes by JKD	JF368
July 1986	Newspaper article about RGO moving to Cambridge, headline 'Edinburgh bitter over astronomy site choice'.			ROE Bulletin notes by JKD	

14 October 1986	Brittania Award Lecture by Malcolm Longair		Lecture at NMS	Script	JF347
21 October 1986	IRCAM First Light Ian Mclean project scientist	IRCAM	1-5 micron camera. SBRC InSb array 58 x 62 elements	Mechanics in RG/07, Cryostat in M8. Another cryostat in library annex. PMW notes + JKD book/archive	JF352
December 1986	JCMT First light was achieved in December 1986 and the telescope was officially opened by the Duke of Edinburgh in April 1987, and the observing program began in September 1987.		By this time the JCMT was funded in a tripartite collaboration with the National Research Council of Canada as well as the Netherlands Foundation for Radio Astronomy (NFRA). The initial suite of three instruments covered the frequency range 218-270 GHz (Receiver A built by MRAO) ; 320-370 GHz (Receiver B built by NFRA); and (nominally) 150 -1000 GHz (2.0mm to 0.3mm) (UKT 14, a helium-3 cooled Ge bolometer built by ROE, QMC, Lancashire Polytechnic and University of Oregon).	RDW notes. Photos	JF350
Xmas 1986	List of long serving staff and graph of how ROE staff has grown. First Spectrum with JCMT on 10 th December. 3 FLAIR runs described			ROE Bulletin notes by JKD	
1987	JCMT sub-mm telescope operations start. See above entry		Sub-mm Astronomy. UK-NL-Canada	Model in VC rooftop. Bigger model loaned to	

				PPARC, never returned	
March 1987	ROE restructured internally. New divisions led by Terry Lee, Ray Wolstencroft, Robert (Bob) Stobie, plus Admin, Hawaii. Jocelyn Burnell describes Beatrice Tinsley award event. JCMT users meeting to discuss Canadian interest in joining JCMT, this already agreed in Principle by Grants committee. JCMT financial situation not good.			ROE Bulletin notes by JKD	
March 1987	Patrick Moore/Sky at Night visit to Hawaii			See May ROE bulletin	
April 1987	Visit of Kenneth Baker, secretary of state at DES on 13 March. Joe Matthews (MBE) leaves 31 March having joined in 1958, originally living in the lodge			ROE Bulletin notes by JKD	
1987	Mary Bruck Retires from university		What was her role?	Peter Brand Timeline	
1987	IRCAM 2 Delivered to UKIRT	IRCAM2	1-5 micron camera. SBRC InSb array. 58 x 62 elements	Cryostat in M5. Photos and documents	JF352
May 1987	Report of Patrick Moore/Sky at Night visit to Hawaii in March. IR detector conference in Hilo, 200 people attend.			ROE Bulletin notes by JKD	

	ROE JCMT group reports on talking about a merger with ROE UKIRT group but this looks unlikely.				
July 1987	Newspaper article of plans to 'share' UKST 50:50 with Australia + critical letter on this idea from Sue Tritton. Also mentions sale of 25% of JCMT to Canada.			ROE Bulletin notes by JKD	
1987	SCUBA Approval				
September 1987	New scientist article in which Graham Smith, Astronomer Royal, lambasts SERC, criticises need for two Royal Observatories (esp move of RGO to Cambridge) as waste of money and says SERC should spend more money in Universities. Estate agent like description of Herstmonceux Castle.			ROE Bulletin notes by JKD	
November 1987	VISPHOT delivered to UKIRT	VISPHOT	Leicester/ROE Optical (BV) photometer used icw IR photometers		
Xmas 1987	Xmas 1987: Tom Geballe made UKIRT AIC. From 1 February 1988 UKST merges with AAT. New Crawford room extension now in use for 19 th century books		UKST Handover agreement also in Library Annex	ROE Bulletin notes by JKD	
March 1988	Malcolm Rivkin's thank you letter after February visit.			ROE Bulletin notes by JKD. Photo	JF343
15 Jun 1988	Document handing over UKST to AAO signed			Copy of treaty Document,	JF351

				Photos	
23 Sept 1988	Official Opening of the Extension to the Crawford Room by the 29th Earl of Crawford to commemorate Centenary of Earl of Crawford's gift and foundation of new observatory. Photos in October ROE bulletin		Also Piazzzi Smyth archive transferred to ROE	Papers, Letters, Notes	JF318
4 July 1989	South Building opened by E.W.J. Mitchell and visit by HRH the Duke of Edinburgh. Report in August 1989 ROE bulletin		Peter Hastings writes: July 1989 saw a visit from the Duke of Edinburgh to the ROE for the official opening of a new South Building. He toured the various departments, and I was introduced to him – explaining the technical intricacies of the ISO spacecraft and ISOCAM. Unlike just about every other 'distinguished' visitor he asked intelligent questions based on what he'd just been told and clearly listened to and understood the answers.	Building. Peter Hastings memories	JF342
October 1989	Food poisoning incident in ROE canteen			ROE Bulletin notes by JKD	
5/6 October 1989	Optics Engineering workshop at ROE,				JF345, 345A
1988	UK Schmidt Telescope transferred to AAO				
1989	CGS-2 Upgrade	CGS2	Non-Destructive Readout & electronic improvements		
Summer 1989	Astronaut Alan Shepard visits		To open Apollo Exhibition in VC	John Davies memory. He helped build the exhibition	

1989-90		CGS3	UCL Instrument 10 + 20 Micron spectrometer. 32 discrete detectors		
January 1990	POIROT Proposal to ESA M2 opportunity		Radiatively cooled space telescope, not built	Medal in Frame in Lodge returned to Tim's widow in summer 2025	
April 1990	Supercosmos instrument arrives			ROE Bulletin notes by JKD	
1990 June 20-21	Remote Observing demo display at Royal Society Soiree, learned that MSL taking up chair in Cambridge			PMW notes	
11/12 October 1990	Optics workshop at RAL			Programme etc	JF345
23 November 1990	Astronaut Valentina Tereschova Visits		En-route to Honorary degree from UofE	JKD memory, date from signed photo	
November 1990	National Astronomy Week Open days at ROE Nov 19-23. Groups in the weekday mornings, public on Friday pm and weekend. 2203 visitors during National Astronomy Week.			ROE Bulletin notes by JKD	
Xmas 1990	Photos and details of Valentina Terescova visit. Paul Murdin appointed acting director from 1 Jan 1991. Newspaper report that the fellowship of Engineering in Britain has given its		Need names form MacRobert award – REH, Newport.....but who else ??????...	ROE Bulletin notes by JKD	

	MacRobert award to 5 engineers and scientists at SERC for their part in building JCMT.				
December 1990	CGS-4 Delivered to UKIRT	CGS4	1-5micron Spectrograph. SBRC InSb array, 58 x 62 elements		
1990	Position of Acting Director, ROE, offered for competition. (There were three candidates, two internal, one external).			PMW notes	
1990	Malcolm Longair resigns as director ROE and Regius Chair to take Jacksonian chair at Cambridge. P Muirdin acting ROE director.		Peter brand becomes Head of Astronomy department	JKD notes. Also Peter Brand timeline	
12 December 1990	Meeting with Tony Hughes, Director of Establishments (?), to discuss Paul Murdin's appointment as Acting Director and forthcoming review of ROE and RGO meeting of whom????			PMW notes	
January 1991	Staff invited to write to John Love, Swindon, re Observatory Review			PMW notes	
4 February 1991	CGS4 First Light	CGS4			
13 February 1991	Visit by Alan Howarth, Parliamentary Under Secretary of State			PMW notes	
25 February	Visit by Nigel Griffiths M.P.			PMW Notes	

1991					
27 February 1991	Senior Management Meeting (SMM) re response to Observatory Review and PGM's presentation on Feb 15th		Also on 28 th ?	PMW notes	
1 March 1991	Staff Meeting to discuss PGM's presentation to Observatory Review Panel. Vote of no confidence in PGM, 60 in favour, 2 abstentions.			PMW notes	
4 March 1991	SMM met to consider presentations by Bob Stobie (RSS), Terry Lee (TJL), John Peacock (JAP), (Donald Pettie (DGP)) to ORP			PMW notes	
8 March 1991	RDW, RSS, PMW, HMG, TJL, DGP, JAP, AJL went to Swindon to meet ORP (John Love, Peter Maxwell, Ian Corbett & Arnold Wolfendale) to present views of senior ROE staff on Review.			PMW notes	
April 1991	CGS4 first light report. Report of petition protesting possible move of ROE to RGO. This petition describes a review in 1986			ROE Bulletin notes by JKD	

	<p>recommending a merger in Edinburgh which was overridden by SERC and RGO moved to Cambridge. M. Longair resigned from ROE in 1990, (leaving presentation was December 1990). P. Murdin appointed.</p> <p>Another SERC review which now recommends a merger in Cambridge. Report of JCMT carousel bogie repair in March 91.</p>				
August 1991	<p>2 and 3 August children's TV show Ghost Train filmed at ROE.</p> <p>Ron Parise Astro-1 Shuttle astronaut visited 24th August.</p>			Reports in Xmas 1991 ROE bulletin	
Nov 91	Mid Infrared Array Camera of Least Effort commissioned at UKIRT	MIRACLE	MPE/ROE instrument. 7-22 microns 58 x62 Si:As array from SBRC		
1992 Jan 17 (or 24th? – both in PMW diary):	Meeting to hear "Merchant" (John Merchant, Director Policy and Administration) Plan adopted by Council to have one Director Royal Observatories and four sites (RGO, ROE, ING, JAC)			PMW notes	
1992	University puts MSc into abeyance		Small number of students out of proportion to effort required	Peter Brand Timeline	
12 April 1992	Astronaut Helen Sharman Visits		To Open new VC exhibition 'The Universe'	Date from S Beard invitation letter	
1992	ROE + RGO Merge.				

1992	investigations on possibly becoming a "Next Steps" agency			PMW Notes	
Nov 1992	Ian Robson takes up post as Director JCMT in Hawaii				
December 1992?	ROE team on TV show Busman's Holiday		John Davies, Alistair Glasse, Quentin Parker	JKD memory. Report in Feb 1991 ROE bulletin	
January 1993	Proposal for mammography Project			Proposal	JG506
13 February 1993	Staff meeting for Director Royal Observatories announcement (Alec B)			PMW notes	
15 March 1993	Alex Boksenberg starts as new director of combined Royal Observatories				
May 1993	Edison Proposal to ESA M3 opportunity		Radiatively cooled space telescope, not built		
1993	"Home end" groups for JCMT and UKIRT under pressure, merged, Management Services Group report on JCMT support in UK, international vs. UK-only, and contributions from Netherlands and Canada, NL budget shortage			PMW notes	
1993	SuperCOSMOS replaces COSMOS	SuperCOSMOS	Optical, Photographic Plate Scanner		

1993	University Merges physics and Astronomy Departments. Astronomers at ROE become the IfA				
April 5-8 1994	ROE organised ENAM (Joint EAJIS and RAS) meeting at Heriot Watt University (as part of 1894-1994 Centenary celebration?).			PMW notes	
20 April 1994	Patrick Moore at ROE for filming Sky at Night programme on work of ROE			PMW notes	
1994	IRCAM upgrade	IRCAM3	256 x 256 InSb Array replaces original 58 x 62 array	Cryostat in Library annex D. Optics and some loose filters in RG07	
8 July 1994	Visit by Sir John Cadogan, Director General Research Councils			PMW notes	
1994???	Andy Lawrence becomes Regius chair and head of Institute.		John Brown (Glasgow) becomes AR for Scotland.		
1994	SERC Split up, ROE now part of PPARC				
19 January 1995	Meeting of ROE staff called by IPMS to hear Andy Lawrence (AL) on UoE's interest in and possible bid for the ROE			PMW notes	JF337
20 January 1995	Meeting of AL, PWJLB, Pusey (Head			PMW notes	

	Physics & Astronomy), Boulton (Dean), SGP, DGP, TJL, JAP, HTMG, PMW to discuss UoE interest/bid.				
1995?	David Emerson of University dies				
June 1995	Hough 2 panel recommends formation of UKATC at ROE			UKIRT book archive, both paper and electronic. Various documents in Library Annex	JF337
1995	WHIRCAM on WHT	WHIRCAM	Near IR Camera. ROE design input. Installed on WHT in LA Palma		
1995	CGS4 Upgrade	CGS4	256 * 256 InSb Array		
17 November 1995	ESA ISO Satellite launch carries ISOCAM	ISOCAM	IR Camera. 2.5 > 17 microns. 32 * 32 Sofradir Array. ROE tested optics and CVFs	Few test optics in RG/07	
1996	UKIRT Top end upgrade		1995?		JF338
1996	Supercosmos scanning begins in earnest			Nigel Hambly Notes	
July 1996	SCUBA commissioned on JCMT – project scientist Walter Gear	SCUBA	450 (91 element) and 850 (37 element) micron camera	Detector arrays in RG/07 Instrument in NMS, Chambers St.	
23 October 1996	At RGO's request, SGP and PMW met their consultants (Mark Smalley			PMW notes	JF338

	and Peter ?) and lawyer (Julian Landy) on neutral ground (Durham) to hear their proposals for a joint business plan for the two ROs				
13 March 1997	Meeting at BNSC London of Jim Sadlier, Rowena Sirey and Jeff Down (PPARC), Jasper Wall, Neil Pratt and Felicity Merle-Walker (RGO) and SGP, JMM and PMW (ROE) to agree terms for the RGO vs. ROE "benchmarking" exercise.			PMW notes	
1997	GMOS		The first of the two Gemini Multi-Object Spectrometers is now approaching delivery. Peter was responsible for the initial opto-mechanical design in close collaboration with colleagues at the Dominion Astrophysical Observatory in Canada	See Peter Hastings Notes	JF334, JG503
4 July 1997	Minister relieves PPARC from implementing Prior Options process and approves merger at ROE to form UKATC, hence closure of RGO.			RAS statement. Published on Web, in UKIRT book archive as paper and electronic.	
1997	SCUBA Operational	SCUBA			
1997	NOTCAM design	NOTCAM	ROE design work for 1024 * 1024 1-2.5um (I JHK) camera to be installed at Nordic Optical Telescope.	See Peter Hastings Notes	
31 March 1998	ROs dissolved. UKATC came into			PMW notes	

	being. Some ROE staff transfer to UoE.				
1 April 1998	UKATC formed at ROE. Adrian Russell Director		RGO closed	Newspaper clippings	JF393
16 May 1998	ISO satellite deactivated after cryogen depletion	ISOCAM			
25 July 1998	ORACDR deployed at JCMT	ORAC-DR	Software, Joint ROE/JAC project		
1998	SPIRE design Work		SPIRE is the bolometer camera and spectrometer for the Herschel Space Telescope – a natural successor to SCUBA on a space telescope. Peter developed the initial opto-mechanical design and was instrumental in the early thermal design and helped establish the ATC's foot in the door for space instruments, a major strategic objective. Launch 2009 (see later)	See Peter Hastings Notes	
29 September 1998	UKIRT Fast Track Instrument 1 st Light at UKIRT	UFTI	Design started at ROE but instrument completed at Oxford University		
1999-2005	Astronomical Society of Edinburgh operate from Earlyburn site		Lease given up when NERC put site up for sale.	Unsigned Note in archive.	
1 April 1999	1999 April 1: More ROE staff (Wide Field Astronomy) transfer to (or appointed by) UoE. Wide Field Astronomy Unit formal inception within UoE IfA: 1st April 1999			PMW Notes, also Nigel Hambly Notes. Folder of papers	JF332 WAFU
1999	JWST/MIRI concepts		Peter was part of a small team which worked	See Peter	

			closely with Astrium GmbH (former Dornier Satellitensysteme GmbH) which developed the concept for the Next Generation Space Telescope mid-IR spectrometer, as part of the ESA payload study. This was very successful and helped pave the way for the acceptance of the importance and practicality of including a mid-IR instrument as one of three instruments in the payload. It is likely to be <i>the</i> major part of the UK contribution to NGST.	Hastings Notes	
Autumn 1999	IRCAM upgrade to improve thermal imaging with smaller pixels	TUFTI	Modified IRCAM cryostat		
October 1999	ORAC deployed at UKIRT	ORAC	Software, Joint ROE/JAC project		
1999	Wide Field Camera for UKIRT Approved. Conceptual Design Review August 1999	WFC			
November 2000	GCAL delivery to Gemini N	GCAL-1	Provides flat field and spectral calibration over 7 arc minute field (flat to 4%) between 0.3-5um		
Feb 2001	Major theft of hard disk drives from SuperCOSMOS machine room			Nigel Hambly Notes	
May 2001	GCAL delivery to Gemini S	GCAL-2	Provides flat field and spectral calibration over 7 arc minute field (flat to 4%) between 0.3-5um		
August 2001	UIST First Light in ROE Lab	UIST	1-5 micron Camera/Spectrometer with IFUs		

August 2001	Michelle First Light at UKIRT	Michelle	10 & 20 Micron imager/spectrograph		
October 2001	GMOS-N First Light		Gemini Multi Object Spectrograph 1/2		
August 2002	School of Physics formed. Andy Lawrence head of school, JS Dunlop head of IfA				
2002?	NAIOMI at WHT		Adaptive Optics Platform for WHT		
September 2002	UIST at UKIRT			1 bit of image slicer in RG/07. Quarter detector array, possibly engineering model, in mount currently located in V18.	
2002	GPOL-N and GPOL-S shipped		0.3 to 5um polarimeter unit used with other instruments		
Nov 2002	Ian Robson appointed Deputy Director				
Dec 2002	VISTA Critical Design review completed				
Late2002/2003	Astronaut Pam Melroy + author Anne McCaffry visit		Melroy gives McCaffrey map of stars over planet Pern created by Steven Beard and carried on Shuttle		
2003	GMOS South on Gemini		Gemini Multi Object Spectrograph 2/2		
2004	Crawford Building opens		Date?		
21 October 2004	WFCAM 1 st Light at UKIRT			Filter Mechanism in workshop	
2005	Adrian Russel resigns and Ian Robson becomes Director UKATC				

2005???	SUPA formed			Peter Brand Timeline	
~2006 (OPTICON FP6)	STARPICKER		Technology Positioner Demonstrator for ELT instruments.	In Higgs building basement	
~2006 (OPTICON FP6)	Micro Autonomous Positioning System	MAPS	Robotic Technology Positioner Demonstrator for ELT instruments	2 Robots in RG1/06	
2006	HARPS at JCMT		Heterodyne Instrument + UKATC software for ACSIS (Auto-Correlation Spectrometer and Imaging System)		
Mid 2007	SuperCOSMOS machine dismantled and shipped to small metrology start-up in Germany			Nigel Hambly Notes	
2007	James Dunlop resigns, John Peacock head of IFA, School of Physics renamed School of Physics and Astronomy			Peter Brand Timeline	
2009	Vista handed over to ESO				
14 May 2009 to IHe depletion 29 April 2013	Herchel/SPIRE. Final de-activation 17 June 2013			BSM Prototype, weight relieved mirror and Herschel model in RG/07. Motorised Model and laser under MIRI display case. BSM prototypes in workshop	
14-16	UKIRT 30 th Anniversary conference			Proceedings	

September 2009				Published	
October 2011	SCUBA-2 commissioning project scientist Wayne Holland		Sub-mm Camera	Test Array in RG/07	
April 2012	Ian Robson retires and Gillian Wright appointed Director UKATC				
April and June 2012	Mid Kent Astronomy Society visit to remove 20Inch telescope from IFA			Photos	
November 2012	KMOS Delivered to ESO and commissioning starts		K Band Multi Object Spectrograph	Spare Arm in Visitor centre. Another Arm and grating mechanism in workshop	
2013	ALMA observing Tool				
2014	Goniometer	Goniometer	Sample positioner for Diamond. Non-Astronomy Project		
2 January 2015	Vincent Reddish Dies			Obituary	JF387
March 2015	GHOST flies on NASA UAV	GHOST	Greenhouse gasses experiment; Non-astronomy Project. Peter Hastings writes The last project in which I had a large design input was for a spectrograph (Green-House Observations of the Stratosphere and Troposphere - GHOST) to be carried on one of NASA's high-altitude atmospheric research drones. It is a cryogenic spectrometer which analyses specific atmospheric gases. It was an interesting project in that it used liquid nitrogen rather than closed-cycle coolers – closing the ring technologically. My successor, David Pearson, had the pleasure of working at	Peter Hastings notes	

			NASA Ames facility for the commissioning and early flight tests.		
2017	Retinal Densitometer		Medical spinout		
2017	HiPerCam		Collaboration with university of Sheffield		
Cubesats			Deployable mirror	Breadboard, currently drifting from office to office	
2018	Higgs Building Opens		New labs, spinout companies		
12 January 2018	Wayne Holland awarded Jackson-Gwilt medal of RAS		For work on SCUBA and Scuba-2	Medal left to ROE when Wayne died. Las seen in Library office	
2020?	Moons starts		New large instrument of ESO		
December 2022	ERIS/NICS Delivered		J-M band hi resolution imager at VLT		
Launch 25 December 2021	JWST			Image slicer optics and models in Crawford building. Flight spares in optics lab. Misc small components in workshop	
2025	MOONs delivery (planned)			Spare Fibre Arms? Small Diameter Test mounting	

				plate. Lego Model.	
ELT/Harmoni	Future instrument			Lego ELT in Cafeteria	

