

The 6th Annual Report of the Radio Communication Examination Standards Committee, May 2012

1. Introduction

This is the sixth annual report of the Radio Communication Examination (RCE) Standards Committee, set up under the terms of the agreement between Ofcom and the Radio Communication Foundation (RCF) for the conduct of amateur radio examinations (the Radio Communication Examinations).

The annual reports of the Standards Committee are published on the RCF website, <http://www.commsfoundation.org/rce/>. Other documents relevant to the RCE are also available on this website, including the terms of reference of the Standards Committee and the agreement between Ofcom and RCF.

2. Membership

The membership of the Standards Committee is as follows:

Prof Simon Watts MBE FEng, G3XXH, Thales UK (Standards Committee Chairman)
Prof Hugh Griffiths FEng, G4CNV, Department of Electronic & Electrical Engineering, UCL
Dr Julian Gannaway, G3YGF, Roke Manor Research Ltd
Murray Niman BSc MIEE, G6JYB, BAE Systems ATC
Dave Powis BSc, G4HUP, College Lecturer
Paul Jarvis, MCMI, G8RMM Ofcom
Alan Betts BSc CEng MIEE MIFL, G0HIQ (Chairman of RCE Examination Committee)
Jeff Smith, M10AEX (RCE Quality Manager)
Steve Hartley, G0FUW (RSGB Technical and Education Committee, TEC)
Barry Maxwell (RCF Trustee)

3. Assessment of Overall Examination Performance

The committee received detailed reports from the Examination Committee, the RCE Quality Manager and the RSGB Examination Department on the management and performance of the examination processes. Their reports are summarised below.

The Standards Committee is satisfied that the current Foundation, Intermediate and Advanced examination syllabuses are suitable for the award of Amateur Radio licenses. Further, the examinations are compatible with the CEPT harmonised arrangements set out in Recommendations TR 61-01 and TR 61-02. The committee will continue to review the syllabuses and examinations to ensure compatibility with international and national regulations.

4. Syllabus Revisions

Implementation of the revised Foundation and Intermediate Specifications published in June 2008 is outstanding due to software difficulties, as are the Foundation changes planned for July 2011. It is expected that these changes will be fully implemented when the new examination software comes on-line in 2012.

Questions relating to the analogue TV switch-off will remain until analogue transmissions have substantially ceased. The syllabuses will then be updated following their next reviews, which will take place over the next 3 or 4 years.

5. Review of the Examination Committee (EC) report.

Question Banks

Further progress was made in 2012 with obtaining new questions but each of the examinations still has a pressing requirement for additional questions. The status of each of the of question banks was reported to be:

- Foundation 47 more required.
- Intermediate 82 more required.
- Advanced 274 more required.

These figures appear worse than last year but the reality will be better than last year once all the questions and drawings are transferred into the new examination software.

The need to produce new questions continues to be a high priority for the EC. It was agreed that the EC, working with the TEC, should advance a new scheme to train a pool of authors who can respond quickly to requests for questions in specific areas. It was also emphasised that questions would continue to be sought from the whole amateur radio community.

Results for 2011

The table shows the number of examinations offered and the overall results for 2011. The 2011, 2010, 2009, 2008, 2007 and 2006 results (bottom) are shown in brackets.

	Foundation	Intermediate	Advanced
Number of Examination sessions	581	235	~150
	(605)	(239)	(121)
	(643)	(260)	(155)
	(614)	(265)	(169)
	(616)	(206)	(95)
	(640)	(230)	(154)
Number of Candidates	1837	694	405
	(1896)	(652)	(321)
	(2021)	(704)	(426)
	(2003)	(733)	(397)
	(1965)	(646)	(289)
	(2034)	(625)	(446)
Number of Passes	1570	632	278
	(1605)	(596)	(222)
	(1704)	(662)	(289)
	(1678)	(677)	(263)
	(1605)	(603)	(161)
	(1719)	(604)	(326)

RCF Standards Committee

Pass rate	85.5%	91.1%	68.6%
	(84.7%)	(91.4%)	(69.2%)
	(84.3%)	(94.0%)	(67.8%)
	(83.8%)	(92.4%)	(66.2%)
	(87.4%)	(93.4%)	(64.1%)
	(84.5%)	(96.6%)	(73%)

The Foundation and Intermediate examinations were available at 'short notice' during 2011 and Advanced examinations were held at 6 set times with an average of 25 centres active on each occasion with 2.7 candidates per centre.

The number of candidates at Foundation level has fallen slightly but Intermediate has held up. Advanced has risen, almost recovering the larger drop in 2010. The SC agreed to increase the number of Advanced exams to seven in 2012 to provide an exam on every day of the week. This is in response to requests from clubs who are constrained in the days they can hire their hall.

The EC has produced a detailed report on the results of the RCE in 2011, aimed at examination tutors and candidates. This will be published on the RCF website at <http://www.commsfoundation.org/rce/committees/index.html#ec>.

Pass Marks

There are no proposed changes to the pass marks set for all the examinations.

As reported last year, Merit and Distinction grades at Advanced level will be introduced in the summer once the new optical marking software is in use.

6. Review of the Quality Manager's Report

Examination Administration

Good liaison with the RSGB Examinations Supervisor has continued.

Conduct of Examinations and Inspections

Examinations are liable to routine unannounced inspections at any time, either from the Quality Manager, working with RSGB, or from Ofcom. During 2011, 24 examinations were conducted by Regional Managers; 3 examinations were conducted by 2 independent Inspectors; and 5 examinations were conducted by the Quality Manager. All 32 inspections were satisfactory. Only 1 candidate was refused permission to sit due to lack of identification.

Any allegations of misconduct are treated very seriously. During 2011 an allegation was made concerning tampering with an examination paper. This matter was fully investigated by the Quality Manager and whilst some evidence of impropriety existed it was not sufficient to meet the rigorous standards required both by law and the RCF. No formal action was taken but appropriate advice was offered. RCF will not hesitate to support any action taken by OFCOM should this become necessary. Methods to improve the security of examination papers are being reviewed in conjunction with the EC. The new examination software should provide opportunities in this area.

Quality Manual

Work is continuing on the production of a Quality Manual which will document all the procedures undertaken by RSGB HQ and the EC in the administration of the RCE. Progress on this has continued to be slow, due to operational difficulties. This will be given a high priority in the coming year.

7. Review of the Report from RSGB HQ Examination Department

A degree of staff stability has helped the effectiveness of the Examinations department since March 2011. Turn-round timescales for results have improved significantly and significant progress has been made in preparing for the new software.

The Examinations department has introduced a more user-friendly way of accessing local club information on the RSGB web, based on Post Codes. As part of this, clubs are able to directly upload their training programme and examination details.

Much of the user documentation associated with examinations has been revised and simplified, and will be made accessible on the web.

A change of title from “Registered Instructor” to “Registered Assessor” was implemented to better reflect the role of those registered. Bringing CRB clearance administration in-house has resulted in a cost saving of £ 17.50 per clearance.

Examination Software

The new examination software is currently being written by a contractor. As well as providing a more user-friendly and modern alternative to the current software, this will also include optical marking of examination papers. This will remove the need for Tally Sheets to be completed and provide an efficient method for verifying local marking of Foundation and Intermediate papers. Advanced papers will continue to be marked centrally. The Examination Department has continued to work with the developer to help bring the new software to fruition.

Examination Appeals or Irregularities

Three problems were encountered during the year. These were all investigated by the Quality Manger and have all been resolved.

8. Complaints Received by the RCE Examination Committee

Fourteen questions were challenged during the year. Two were in the same paper, one concerned with a change from BR68 that introduced an ambiguity and the other an editing problem resulting in the loss of a line of text. Both were invalidated in that exam, resulting in a pass for the candidate. One Advanced question was in the Intermediate bank, invalidated and moved, with no effect on results. Two Intermediate questions relying on precision of reading and understanding were considered too difficult for younger candidates as written and edited, with no effect on results. Three questions were considered acceptable but edited to clarify meaning. Six questions were considered acceptable with no action required.

9. Air Cadet Organisation

The Air Cadet Organisation (ACO) <http://www.raf.mod.uk/aircadets/> runs a UK Cadet Force sponsored by the Royal Air Force, including 928 Air Training Corps squadrons of the Air Training Corps and 200 RAF Sections within the Combined Cadet Force. The ACO offers training in radio communication, including a Foundation Equivalent Examination.

Discussions have been held between the ACO, Ofcom and the EC with a view to a pass in the ACO Foundation Equivalent Examination being accepted by Ofcom for the issuing of a Foundation Amateur Radio licence.

The SC has reviewed the proposals and Ofcom has confirmed that the ACO Foundation Equivalent Examination syllabus meets the HAREC requirements for the issuing of Foundation Amateur Radio Licences. The SC has requested that arrangements are now put in place for the RSGB to forward to Ofcom details of successful ACO Foundation Equivalent Examination candidates that wish to be issued with a Foundation Licence.

The syllabus and administration of the ACO Examination will in future be reviewed and assessed for conformity with HAREC requirements by the SC. The ACO will be represented on the SC and also on the EC.

The SC very much welcomes this initiative which has the potential to introduce more young people to amateur radio.

10. Recommendations

The RCE Standards Committee made the following main recommendations for action during 2012:

- The ACO Foundation Examination in Radio Communication should be accepted for the issuing of Foundation Licences by Ofcom.
- An immediate priority for the EC, working with the RSGB, is to fully implement the new examination software.
- Continuing urgent consideration should be given by the Examination Committee, working with the RSGB TEC, to improving the supply of questions for the RCE question banks.
- The Quality Manager will continue development of the quality process, including a quality manual for the administration of the RCE.