AMERC News

Issue 58 – Incorporates Circular 275 August 2016

Editorial

Welcome to issue 58 of AMERC News - *which doubles as* **Circular 275** *and, as such, must be circulated to all GMDSS instructors/examiners by their AMERC centre contact.*

In this issue we have a brief on the most recent ***Maritime Consultation Group*** (MCG - Page 2) - reflecting relevant items covered in the most recent AMERC Executive Committee (EC) meeting - including: ***the requirement for centres to have enough equipment to occupy all delegates, depending on the size of the group;*** clarification of screen ***size and resolution*** and update of the upcoming examination series; a ***ban on the use of 'smart watches'*** and similar devices in examination rooms; and a reminder to members to ***check and update your entry on the AMERC Website.*** The ***quarterly statistics for GMDSS examinations*** are also included here.

The MCG report is followed by a summary of AGM and Examiners Panel proceedings, including ***the Company Secretary's Report***; *the* ***MNTB Technical Committee Report;*** a ***request from NAC regarding examination payments*** (and associated points); and the ***Chief Examiner's report***. Also included here is an ***Inmarsat Update*** on Fleet 77/55/33 services; an observation on the teaching of SSB radio ***receiver gain controls***; the ***status of older-generation equipment*** that may not now be supported; a reminder about the ***requirement to have adequate publications*** – including a demonstration of the '***digital bookcase'*** featuring ***Admiralty Digital Radio Signals*** (ADRS) for ***ALRS Volumes, 1, 3, 4, 5 and 6***, the ***ITU List of Ship Stations***, and ***the IAMSAR Manual*** (etc) on the ***IMO 'Bookshelf'.***

A reminder of the ***minimum age for entering UK GMDSS examinations;*** a note about the ***revised approach to conducting OPT examinations*** in the new series; and a further ***presentation on Inmarsat services*** from Roger Taylor.

Page 8 hosts our usual '**GMDSS Criss-Crossword'** to help stretch delegates' knowledge of **international geography** and the use of **Admiralty List of Radio Signals** (ALRS) publications; and is followed by **Explanation Please?** and **Tales from the Key-Side** (featuring a story from the '**Tropical Radio Telegraph Company'**) on page 9.

There's no ***Member Profile(s)*** feature in this issue; but ***Maritime Miscellaneous*** is here with a summary of the UK Coastguard's National Maritime Operations Commander's presentation on the ***National Maritime Operations Centre (NMOC)*** and associated networked coastal Operation Centres.

Your submissions are always welcome for ***Explanation Please? Member Profile, Maritime Misc'*** and ***Tales from the Key-Side*** - and/or anything else you think would be of interest to readers. Further suggestions to help delegates develop their knowledge of international geography would also be welcome.

As usual – my sincere thanks to those of you who've provided feedback, questions, tales and other information for your newsletter.

Sláinte! *Ian W*

Mail: gmdss4all@gmail.com

The date for the next AGM and Examiners Panel is Wed-Thu 7th-8th June, 2017. Venue to be decided.

*The **Maritime Consultation Group** (MCG) meets regularly - currently four times each year – for the AMERC Executive Committee 'Open Meeting'. MCG membership consists of AMERC Executive Committee (EC) representatives; the AMERC Chief Examiner; the MCA Chief Examiner and/or the MCA Deck & GMDSS Team Leader; the NAC and other AMERC/industry specialists.*

The latest meeting was held in Southampton in June 2016 – in tandem with the Annual General Meeting and Examiners Panel. The following items reflect discussions at MCG/AGM/Panel (full minutes will be circulated appropriately) - and/or associated items that are of interest to Members and training centres. The items are placed according to size - not in any 'priority' order.

Training/Examination Centres equipment fit:. Noted that, in the AMERC Administration Handbook, options for equipment fit allow for either 'live' equipment, or (approved) 'simulation' – or a combination of the two. Centres are reminded that, regardless of equipment fit chosen, there must be enough equipment to allow all delegates to be fully engaged during training sessions. For example – where a class has twelve delegates and eight are occupied on a RT exercises using a networked simulator installation, the remaining four must have access to additional equipment and/or other directed training whilst the networked equipment is otherwise occupied. If in doubt – consult the Chief Examiner.

Touch-screen simulation – monitor size and resolution: A general principle of using touch-screen simulators in place of real equipment is that the simulated equipment must, as close as possible, simulate the 'real' equipment. To this end, centres are advised that a screen size of 15.5-inch with a resolution of 1024x768 will normally give close to the actual size of most equipment being simulated. Centres who have fitted larger screens must adjust screen layout/resolution to approximate the actual size of the equipment being simulated.. This information has been included as an update to the AMERC Administration Handbook.

Examination Papers update: The new series of examination papers were introduced to Examiners Panel and the change of format for the Operational Performance Tests (OPT) was explained. Although the 'task list' remains broadly unchanged, a 'pre-sailing checklist' approach has been developed – covering some of the tasks - with the view to making the examination more 'real life' and to encourage candidates to go away from their course with that 'good practice' idea to apply onboard their own vessel. This change to be introduced with the new series in January 2017.

Smart Watches etc; Another change to the AMERC Administration Handbook is a note to examination invigilators that - in addition to mobile phones – all 'smart watches' or similar electronic data storage or communication devices must be fully switched-off and placed out of reach of candidates. More detail in the Handbook.

AMERC Website – Member List As previously reported - It appears that some contact information on the members list on the AMERC website is still out of date – all Member organisations are again asked to check their own contact name, telephone number and address and to make any necessary amendments. Anyone having trouble in making the changes can contact Kevin Walsh, who will be happy to assist.

GMDSS Examination Statistics – quarterly report: National Administration Centre (NAC) examination statistics for the period ***1st January 2016 – 25th March 2016*** are shown below:

EXAMINATION	ENTERED (1st time)		PASSED (1st attempt)		% PASSED 1ST ATTEMPT	
UK GOC	244	(218)	215	(193)	193/218	(>86%)
ALL GOC	501	(454)	450	(407)	407/454	(>89%)
UK ROC	54	(52)	51	(49)	49/52	(>94%)
ALL ROC	72	(70)	69	(67)	67/70	(>95%)
LRC	32	(32)	31	(31)	31/32	(>96%)

AGM – The **Company Secretary** reported that The Executive Committee had met on four occasions during 2015–2016, and that issues discussed included:

- AMERC/Wray Castle Contract (NAC) has been agreed and signed;
- Vice Chairman and AMERC Representative at MNTB - Kevin Walsh has agreed to take-on both roles (previously occupied by Phil Davies);
- GMDSS Simulator Systems - a new system has been approved and included in the revised AMERC Administration Handbook – there are now four approved simulator systems for AMERC use;
- ENEM/ETO Update – progress report on the production of the Principles paper, ENEM and GMDSS Radio Maintenance Certificates; and
- 'New Overseas Centre' Policy - the Executive Committee recently reviewed its policy of not accepting any new applications from Overseas centres, and has confirmed that this policy would remain in place for the foreseeable future.

More information on the above points, and other items included in the report, are available from your Centre contact (who has full copies of AGM papers).

Kevin Walsh delivered the **MNTB Technical Committee Report** as it affects AMERC, and included information on:

- Completion of the final **MNTB Short Course criteria documents**, in line with STCW 2010 Manila Amendments reported - the GMDSS booklet has been finalised and is available to purchase on the Witherby Publishing site. It is available in either (i) paper booklet format or (ii). digital format (user must install a digital reader from Witherby's and use this each time);
- The **Maritime Apprenticeship Trailblazer (MAT)** group agreed that an apprenticeship standard developed by the Royal Navy covers skills development companies require of Engine Room rating and Electro-Technical rating. Discussions are underway to ensure the title and options within the standard are fully articulated in a way meaningful for shipping companies wishing to use this apprenticeship;
- An interim report on **'Training 2025 – Review of Seafarer Education and Training'** included progress on 'Project Ulysses' (refocusing on skill sets required by different grades of seafarer officers when seeking shore-based employment); and 'Scottish Ratings Summit' – which identified a need for up-to-date information about rating training and apprenticeship courses, costs etc;
- An **MNTB autumn seminar** provided an opportunity for attendees to consider the range of teaching and learning methodologies that are being used within seafarer training programmes in colleges throughout the UK – to better understand them and their effective use; and
- As part of above, MNTB has produced draft **Training Standards for Seafarers at Operational Level**, each for Engine, Deck & ETO. There is also a draft Programme Principles, Requirements and Approval Criteria over-arching document. A sub group has been convened to work on the drafts to bring back to the next meeting in June 2017.

Again – further information is included in the AGM papers circulated to Member contacts.

National Administration Centre (NAC) requests/reminders:

- If at all possible it helps the NAC if exam payments can be made in the same month as the application forms are tendered, i.e. BACS set up when exams done so that payment reaches our bank as quickly as possible. It's not essential, but does help with the accounting if it can be done;
- If a Revalidation Exam has been done we need to know that this is the case, as the candidate will already hold a certificate. So, unless the original certificate has been lost (and this should be made clear to NAC) we would not issue another certificate, only a Revalidation Letter to confirm the pass - and that (s)he is the holder of an existing cert. There is space on the application form for this information to be recorded for the NAC. Our database will more than likely pick up an existing record, but if very old, it could be missed, so we would ask that examiners point out this section to the candidate; and
- If a certificate is to be sent abroad (particularly outside Europe) or to a remote location, it is recommended that a courier service be used rather than standard air mail. Centres and Examiners are encouraged to advise delegates/candidates that this is possible. The fee is £39 and should be sent with the application.

Chief Examiner's Report and Examiners Panel.

The complete Ch. Examiner's report is included in the AGM pack – and the following are particularly emphasised:

During his centre visits the Chief Examiner found that although – overall - the standard of course delivery and the examination conduct has been excellent, isolated issues were identified and the centres advised.

The length of the *course* continues to cause some minor issues. Centres are reminded of the following. (This repeated from 2015 and all previous years);

- Minimum GMDSS GOC Course Length = 60 hours including 2.5 hours for examination. Course *Contact* = 57.5 hours; and
- MNTB Definition of a Training Day from 2011: *"A Training Day has been defined, in agreement with the MCA, as one which cannot be in excess of 10 hours including all relevant breaks and with no more than 8 contact hours".* For the avoidance of doubt - it follows that the 57.5 hours teaching time cannot be completed in seven days.

Centres (AEV's) are reminded that as well as requiring AMERC/MCA Course approvals which will dictate the number of students on a particular course, they must also comply with the MNTB requirements that for a GOC a course can only run with a maximum of 12 students per tutor per set of equipment. Each trainee must be engaged at all times and provision must be made for the balance of this larger group when (up to) eight students are undertaking an RT Exercise.

There were a couple of avoidable administration issues. Centres are reminded that a candidate re-sitting at a different centre must undertake the full examination. Also note that the candidate MUST declare any previous attempt at the examination. The NAC will pick up this failure to declare and it's possible that the candidate will not be certificated. There was one appeal during this past year: a candidate appealed his examination result. The appeal was successful.

INMARSAT Update:

It was reported that Inmarsat had informed the IMO that Fleet 77 'Safety' activity would 'end of life' in December 2020, in line with the requirement of five-years notice. End of life/migration plan for F33/F55/F77 commercial services is expected 'within weeks' (Editor).
Inmarsat-C will continue for the foreseeable future (more than 25 years of service already).

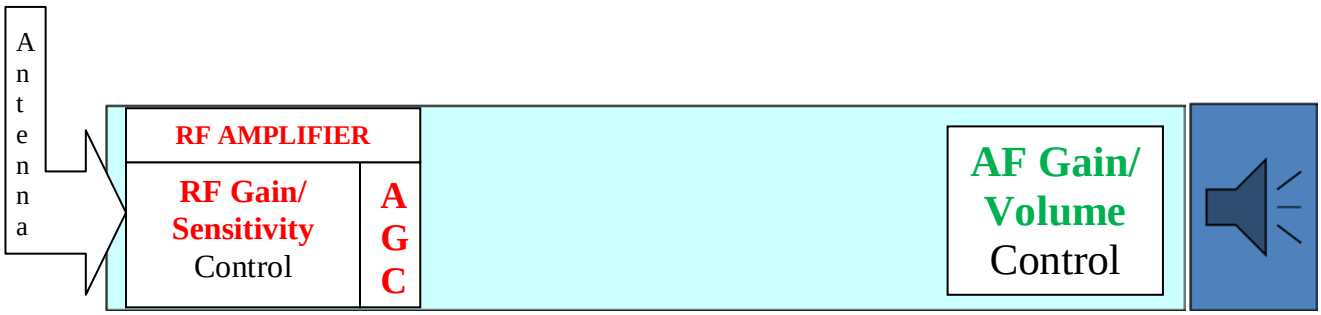
Communications:

With more and more of the GMDSS training activity being carried out by ex ships' officers of the deck discipline rather than ex-ROs, it has been noticed (quite understandably) that there are some rather 'technical' bits of the syllabus that could, perhaps, be dealt with more accurately – e.g.,:

- RF Gain/Sensitivity/AGC
- AF Gain/Volume

One issue is the continued difficulty in sourcing a live signal which is why the Steve Howard's fix for your Transas Simulator is highly recommended. It's not just the ability to tune a signal but it's an excellent tool in being able to set the RF Gain and AF Gain and demonstrate the function of the AGC. For those of a less 'techy' background, here's a basic 'plain English' description of the function of those three gain controls:

Receiver GAIN Controls:



- Weak 'Radio Frequency' signals enter the receiver and are presented to the 'RF Amplifier' – which will be (typically) factory-set to run at e.g., 60-75% (depending on model);
- Automatic Gain control (***AGC -*** which is normally ***ON)*** measures the signal level at the RF Amp'– and will adjust the RF Gain/Sensitivity up/down around that factory-setting - ***automatically*** - to compensate for 'FADING' signals (where the signal strength being received varies – primarily due to the effect of the ionosphere as the signal passes through) – passing a constant-level signal to the remaining stages of the radio receiver;
- For most (reasonably strong) signals, and with 'AGC On', you should normally only need to use the ***VOLUME/AF Gain*** control.
- To adjust RF Gain ***manually*** (e.g. when receiving very weak signals - and where the AGC might be acting on 'background noise' rather than the desired [but weaker] signal – AGC must be ***OFF***. In some modern equipment, adjusting the RF Gain control switches-off the AGC dynamically, whereas older equipment needs you to manually switch-off the AGC before adjusting the RF Gain control.

New Instructor Aids! Kevin Walsh has introduced a 'Useful Links' area on the AMERC Website that can be accessed by all Members/Instructors/Examiners who have 'login' access. Logging-in and clicking the 'links' button will give you access to some excellent 'demo' clips explaining radio and satcom equipment controls, setting-up etc - and also to others on 'YouTube'. There is also a link to an excellent SDR. If anyone can provide links to further resources, they will be considered by the MCG for incorporation.

Equipment:
There was a query regarding the validity of older equipment that might not have any manufacturers' technical support any more. This from a radio surveyor:

"Re. survey of GMDSS equipment: vessel will pass if kit meets standards. Manufacturers may not support or provide spares, but there are usually second-hand spares somewhere, though difficult to find. Ship runs risk of delays to sailing if old kit fails and no spares available, in which case new installation would be required. SP 2000, 4000 and 5000 still fairly common, and passing radio surveys, though normally replaced with modern sets if any problems occur".

Publications.
Centres should be aware of the requirement for the correct type and number of ITU/ALRS documents they should have access to for the *examination*. This information is published in the AMERC Administration Handbook. There is a separate requirement for AEV's and course delivery. This information will be published in AMERC News AND will also be published in the revised MNTB Documentation. Probably most importantly there is a requirement for ONE copy of the ALRS Volume 5 for every TWO people on the course.
Representatives are reminded that extra visits to centres, perhaps as a result of non-conformity during an audit, or to deliver the Chief Examiner's Course to new examiners or due to the re-location of the course provision, are likely to be re-charged to that centre.
There is currently a moratorium on opening new Overseas AEV's but that is not the case for UK based operations. There is a well defined application process for proposed new UK AEV's and the AMERC Company Secretary should be contacted in the first instance.

Minimum Age
Centres are reminded that, in order to qualify for a UK GMDSS certificate, the applicant must be at least 18 years old. This requirement is clearly stated in MSN 1864 'Training & Certification Guidance: UK Requirements for Radio Operators' – which also lists the other requirements.

Examination Series 2017-18
The main change to the next series of examination papers is in the Operational Performance Test (OPT) – where a 'pre-sailing checklist' is being introduced. This will not include significant changes to the current task-list, but rather modify the order of events.

The complete Chief Examiner's report is available through your centre contact.

Inmarsat Presentation:

Roger Taylor of 'GMDSS Training (64ths Ltd)' had recently visited Inmarsat and gave a presentation of his findings, including:

- Fleet Broadband (FBB) L-Band satellites had a planned life of fifteen years (replacement satellites are already in production);
- FBB (IMO/GMDSS) approvals application will be submitted to NCSR next year; and that
- Fleet Express will use
    - L-Band (FBB) for Distress, Urgency and Safety communications, including the updated SafetyNET service delivery; and
    - Ka-band for higher data rate services.

Note that Roger/64^{ths} Ltd operate MF/HF DSC Station 'SnargateRadio/MNC MMSI 002320204' and is open for test calls (see ALRS Volume 1/6 for times and frequencies).

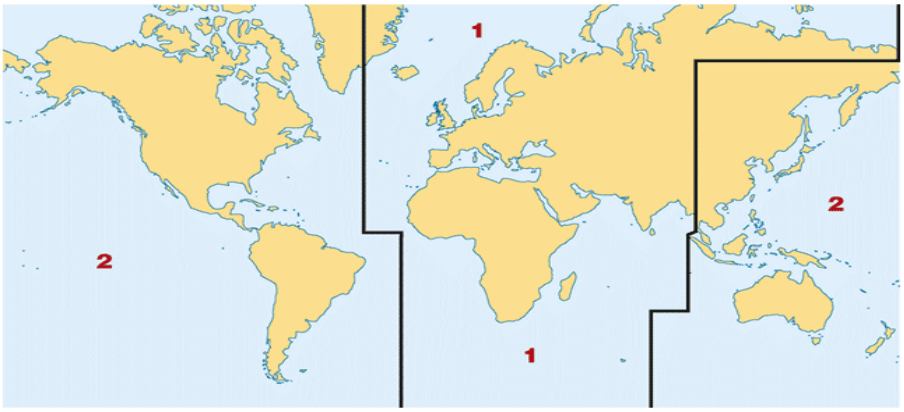
Digital Bookcase:

Attendees were reminded that all 'digital publications' can be held on a single computer - that being considered your 'digital bookcase' - and that this computer must be additional to those computers being used to host radio simulator equipment during examinations.

Currently available in digital format (relevant to delivery of GMDSS training) and that could be held on your 'digital bookcase' are:

- the ITU List of Ship Stations and MMSI Assignments;
- The IAMSAR Manual Volume III (requires the 'IMO Bookshelf' to be installed on the PC);
- ADRS1345; and
- ADRS6 – Ports and Pilots etc

The relatively new Admiralty Digital Radio Signals 1345 (ADRS1345 - a digital version incorporating ALRS Volume 1; Volume 3; Volume 4 and Volume 5) was demonstrated and the need for a different user approach when compared to the paper versions was explained – particularly because the software includes all services that were previously spread across the four individual publications now included in ADRS1345..

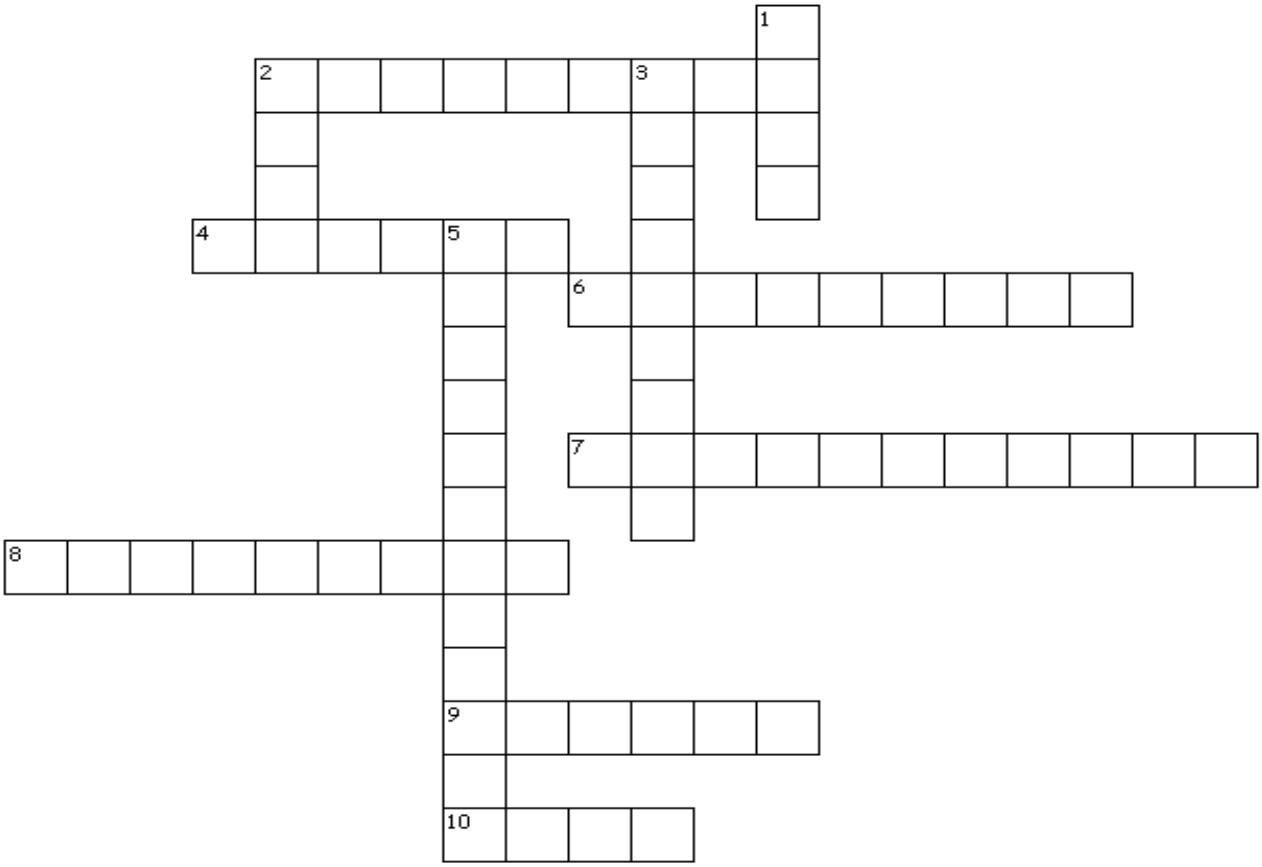


ADRS1345 can be licensed for Area 1 – 'UK, Europe, Africa & parts of Asia'; and/or Area 2 – 'Americas, parts of Asia and Australasia'. For AMERC Centres running GMDSS training courses, the worldwide (Areas 1 and 2) would be required.

Perhaps of interest to centres is the fact that a (limited time/coverage) demonstration licence is available free from UKHO distributors and – perhaps even more interesting – is that a discount of 75% is available to Training Centres for these digital products. This was confirmed by one of the distributors in Aberdeen, whereas the one distributor contacted in Genova (there are three there) didn't respond to [your Editor's] enquiry.

Centres who have already installed ADRS6 will be aware how easy it is to find the details of harbour etc authorities. ADRS1345 – incorporating so much more diverse information - requires a different approach and it was suggested that centres would be advised to take advantage of the free trial period to judge how best to incorporate this into their training before starting their first annual worldwide licence. Note also that the initial licence comes with a disk holding all 'weekly corrections' to the date of purchase – which is much more effective than doing an internet update!. A suggestion that our 'younger generation' delegates might find the digital version more fun than we (generally 'more mature') lecturers who actually deliver the training, was not challenged ☺

GMDSS Criss-Crossword Number 58 - all answers should be researched and/or confirmed by reference to ALRS, ***where appropriate***



Down

1. Inmarsat Ocean Region (satellite) providing both Nav' and Met' info' for the NAV/METAREA in which (6-across) is located.
2. Black Sea port city located about half way between (9-across) and Trabazon.
3. MMSI for DSC station located at (8-across).
5. (4,5,3) forecast area in which (9-across) is located.

Across

2. MMSI for DSC station at (9-across).
4. ID letter for international (English language) broadcasts from (8-across).
6. (5,4) Key marine gateway to the North West of Ireland.
7. Port and Harbour Commissioners for (6-across).
8. (5,4) NAVTEX station serving the coast around (6 across).
9. NAVTEX station on Turkey's Black Sea coast.
10. ID letter for National NAVTEX broadcasts from (9-across).

Issue 57 answers – *with hyperlinks*:
DOWN: 1.Bushehr; 2.KhorMusa; 3. Mahakam; 7. Miri; 8. Indonesia;
ACROSS: 1.BandarEEmamKhomeyni; 4. Tango; 5. Baram; 7. Samarinda; 9. Nine; 10. BandarMahshahr.

Explanation Please?

This is the area for questions that may puzzle you – whether you're a trainer without a specific 'radio' background; a seagoing operator who's finding that the 'real world' doesn't seem to be fully in-tune with what you learned in the classroom (or with what you've read in publications – official or otherwise); or because it's not particularly clear why a specific answer to a question on the 'AMERC Quiz' is necessary when it appears that one of the other answers may also appear appropriate.*Note that those of you who have access to our 'EXAMINER'S FORUM' on the AMERC website can open-up and discuss any subject/question that they have an issue with ☺*

Feedback:

For those using live equipment in N.W Europe/UK – they might want to know that, besides the Shannon Volmet 5505 kHz frequency for the live SSB signal – there are alternative options on 3, 8 and 11 MHz. We (64ths Ltd) find it just as easy to tune to 197.9 kHz (BBC Radio 4) and select J3E/SSB mode and ask the students to tune for best intelligibility. It illustrates SSB distortion exceptionally well although there is obviously a background beat/tone between the transmitted carrier and the inserted carrier - which disappears when eventually tuned to 198 kHz.

It also allows us to keep up with the cricket score during the OPT practice sessions!

Tales from the Key-Side - *by*AnonyMouse ...

This is the page for your stories – whether from personal experience at sea, at work, in the classroom or life generally – recent past or distant past. Or it may be something you've heard. Doesn't matter – we're looking for interesting, funny or informative stories that may make us laugh, cry or look for someone to hit. Submissions may be edited, and the writer's name will, of course, be withheld on request.

Dateline: Tropical Radio Telegraph Company station, Slidell, Louisiana / WNU - 1986
Time: Mid-watch
Frequency: 500kc/s [now known as 500kHz]

THE CUBAN SIGNAL CRISIS

I taught myself Morse code at age 10 and was a shortwave listener in New Orleans, Louisiana. My childhood dream, in 1972, was to some day work as a radio-telegrapher for the Tropical Radio Telegraph Company station in Slidell, Louisiana / WNU. I was determined to work at that station, no matter what!

Fourteen years later I was standing mid-watches there. (10:30 PM to 8:30 AM.)

The station down the coast was WLO in Mobile, Alabama. The WLO mid-watch operator was crazy. I could hear that from his signals. He would call me on the international calling and distress

frequency of 500 kc/s, which was highly illegal. I never answered his calls. It was illegal for a coast station to communicate with another coast station on that frequency.

I got sick of his rule violations and finally picked up my telephone, dialed WLO, and told him:

"Listen to me, and listen well. I've got your signals logged and I've got them tape recorded. If you ever call me again on 500 I will make you regret it!"

He stopped calling. I thought everything would be OK.

BUT THEN... One night I hear that same WLO operator calling Havana Cuba Radio CLA! That was highly illegal and forbidden by the U.S. government. I was certain of my moral authority in this matter.

At the time (1986) there was only one legal circuit for telegrams to Cuba and that was via Tropical Radio Telegraph. We ran a 24 hour encrypted radio-teleprinter link to Havana on 5 and 10 MHz. It was one of the last point-to-point telegraph circuits in operation in the U.S. at the time, most having been replaced by satellite links.

I was shocked to hear CLA answer WLO and move up to their working frequencies! I followed them up and listened. They were just chit-chatting as if it was an Amateur Radio conversation.

This angered me greatly and I could not let it go. I had to do something about this most serious violation.

I got on the telephone to the Federal Communications Commission (F.C.C.) monitoring station in Kingsville, Texas. I reported what happened; I was told to hold on while they tuned to the proper frequencies. After a moment I heard the same signals I was hearing on my receivers over the telephone. The F.C.C. operator thanked me for the call and released me to continue normal commercial operation.

The next evening I noticed a new mid-watch operator at WLO and I guessed they had fired the guy.

THE FALLOUT

Two years later I was working at Mobile Radio / WLO. I asked about the incident. I was told that the operator there was fired immediately, underwent an interrogation by U.S. government agents, then had his license revoked.

I wonder what happened to operator at CLA. I guess I'll never know.

Today, the WNU receiver site (where so much wonderful work was done) is an empty building rotting away in the middle of nowhere. WLO carries on with R/T and data service.

I really do want to go back to those places some day... if only I could.

73,

Richard M

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Maritime Miscellaneous: UK National Maritime Operations Centre.

The Examiners' Panel received a presentation from the UK Coastguard's National Maritime Operations Commander – Steve Carson – on the updated National Maritime Operations Centre (NMOC) and associated networked Coastguard Operations Centres (CGOCs).

The NMOC infrastructure has moved from nineteen independent MRCCs in 2012 – each of which had limited additional support, resilience and flexibility; and each covering their own fixed geographical area - to, in 2015, a fully networked infrastructure whereby all 165 UK coastal radio installations (VHF and MF) can be utilised by any of the other Operations Centres (one NMOC – the central control – and nine Coastguard Operations Centres around the coast - with one additional centre in London).

Why the change?

In the previous system, if any particular MRCC had a major incident, they still had to look after the rest of their own complete sea-area of responsibility - and to deal with any further incident that might occur. Each of the nine new Coastguard Operations Centres now have their own sea-area of responsibility sub-divided in such a way as to allow any other Operations Centre to 'take watch' for sub-divisions of any centre controlling a major incident – allowing the centre with the major incident to deal with that incident without additional distraction. The NMOC also has the facility to provide central support, when required.

Steve also explained that national resources now include twenty-two (22) rescue helicopters, located across ten bases, on contract to the UK Government. These consist of AgustaWestland AW139/189's and the higher-capacity Sikorsky S-92 aircraft.

The UK Coastguard is now also responsible for running UK Aeronautical RCC operations – previously run by the Royal Air Force (RAF). The Mission Control Centre (MCC) for processing Cospas-Sarsat EPIRB alerts is also due to transfer to HM Coastguard.

In addition to the main Operations Centres, there are approximately 3500 volunteers across 355 local centres around the UK coast, primarily for coastal/cliff rescue duties.

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