ARASWF Newsletter

Vol. MMXI No. 3 The Journal of the Amateur Radio Association of Southwest Florida
March 2011

In This Issue:

Next Meeting will be held on March 22nd 2011 at 7.00pm at the Red Cross, Naples!

From the President's Shack

Hello to All.

We are getting close to Field Day and Frank W4RBW is going to run Field Day this year. Any one who would like to help on Field Day, please let Frank or any of the officers know about your wishes. We are trying to come up with a site to have Field Day. The Park where I live has given us permission to use the screen room. It is 30' by 40' and all screened in. There is a bathroom, a kitchen with an electric stove, a refrigerator, and a large grill outside the room for cooking. Also one of the people that lives there told me we can use his screen room. It is small but we can have one or two stations there. If any one would like to see the site, please let me know so you can come down and look for yourself. If anyone knows of a site for Field Day please let Frank know and we can check it out. At that time of the year their will be only a few people in that end of the park.

Well the first meeting at the Red Cross went fine. The Red Cross reached out for some help around the building. If possible we will set up a work group so we can help when it is needed. They understand that very few people want to leave their home during hurricane, so they are OK with that. They do want us to put up a tower for their antennas and the club antennas. They are trying to work with us.

I hope to see everyone at the next meeting.

73 George AA4GT

Meeting Minutes

Amateur Radio Association of Southwest Florida

Regular Monthly Business Meeting held at the American Red Cross, Naples, Florida, on Tuesday, February 22nd, 2011

Officers and Directors Present:	George Tomlinson, AA4GT - President Karl Geng, N1DL – Vice President Bob Graf, W2HI - Secretary Joe Goggin, K9KNW – Treasurer Peter Gaddy, KK4PG – Director Frank Halas, W4RBW – Director
Apologies:	David Schaare, W4SFR – Past President Uli Altvater, AGØX – Director

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MEETING MINUTES

Meeting Called To Order:
There being a quorum present with 30 members (including 6 officers and directors and 2 guests) in attendance, George AA4GT called the meeting to order at 7:00 pm with the Pledge of Allegiance

Introductions:
All attendees introduced themselves by name and call sign for the benefit of the members and guests in attendance. Guest Ed Kosanke introduced himself, and Joe K9KNW introduced guest K1MAT (?).

Reading & Approval of Previous Minutes:
Reading of the Minutes of the previous meeting was dispensed with since they were published previously in the ARASWF Newsletter.

Treasurer's Report:
Joe K9KNW reported that as of February 22nd, 2011, the bank balance is $3,940.45, after income of $575.00 from 50/50 and dues. Pending expenditures yet to be paid include $75. for printing expenses due Staples, and $12.45 due Publix.

Officers' Reports:
License Upgrades: Karl N1DL announced that Frank W4RBW passed his Extra exam at Orlando, and Cal KJ4YEL passed his General Exam at Fort Myers. Congratulations were given to both members.

WB2QLP Memorial Plaque: Joe K9KNW reported that we received an invoice for $40. for the memorial plaque for the Florida QSO Party for 2010, to be awarded to the "Top Florida SSB – In Memory of Jordan Marsh WB2QLP", which was awarded at the Orlando Florida Contest Group Meeting at the Orlando HamCation on February 12th. This annual sponsorship was authorized by the membership at the time of Jordan's passing, and it looks like this will be an annual request. In order to determine if the club members want to continue this sponsorship indefinitely into the future, Joe K9KNW made a motion that we discontinue this sponsorship after this year, seconded by Bruce K9PWQ. The motion was defeated with few dissenters.

Tower availability: Joe K9KNW reported that the tall tower behind the former two-way radio shop on Davis Blvd. appears to have been abandoned and may be available to the club for use as an antenna location. He personally inspected the tower, and found it to be a Rohn 45 in good condition, with one VHF and one UHF antenna installed, in addition to an unidentified third antenna. The only work that appears to be needed is to tie the existing hard-lines to the tower in places where it is not tied down. A meeting with the building owner has been set for Thursday, February 24th, to determine what possibilities exist here. Several questions need to be clarified, including whether we could lease the entire tower or just space on the tower, insurance requirements, etc. This would be a possible location for our second VHF repeater (145.27) and a new UHF repeater, which is in the club's possession and ready to go, awaiting a good location.

D-Star: Frank W4RBW reported that the D-Star repeater owned and maintained by Collier County IT on County Barn Road seems to have been re-activated and is on-the-air at this time. This was confirmed by Fred KF4MJJ. Frank said that he received indications from both Collier EC and IT that it may be possible to provide an internet connection and a computer at the site, which would allow the repeater to be fully functional. Frank will continue to follow-up on this, and report back.

Committee Reports:
None at this meeting.

Old Business:

Tuesday night Echo Link Net: Harry KD4JMV asked if the Executive Board discussed the possible resumption of the Tuesday night Echo Link Net, and he was informed that the Board did re-visit the matter and has authorized resumption of this net, effective immediately.

New Business:
Wednesday night information net: George AA4GT announced that the Wednesday night information net has been temporarily suspended due to lack of membership support, and the matter of its resumption will be discussed by the Executive Board.

Special Program:
Karl N1DL made an excellent presentation on Winlink 2000, and what it takes to get started using this digital messaging system for amateur radio. He distributed printed materials of his presentation, and offered to make additional copies of the materials available on his web site for the next two weeks for members to download. He also demonstrated the capabilities he has to remotely operate his two stations in Naples and Blue Ridge, Georgia.

50/50:
The 50/50 raffle was won by Dick N1DO.

Adjournment:
There being no further business, the meeting was adjourned by George AA4GT at 8:40 pm.

Bob Graf, W2HI
Secretary

Executive Board Meeting Minutes

Amateur Radio Association of Southwest Florida

Executive Board Meeting held at Pizza Hut, Naples, Florida, on Tuesday, February 8th, 2011.

Present: George Tomlinson, AA4GT – President
Bob Graf, W2HI - Secretary
Joe Goggin, K9KNW – Treasurer
Peter Gaddy, KK4PG - Director
Frank Halas, W4RBW - Director

Apologies: Karl Geng, N1DL – Vice President
Uli Altvater, AGØX - Director
Dave Schaare, W4SFR – Past President

Guests:

MEETING MINUTES

Meeting called to order:
There being a quorum present, George AA4GT called the meeting to order at 1:00pm.

Reading & Approval of Previous Minutes:
Reading of the Minutes of the previous meeting was dispensed since they were distributed previously to the Board members.

Officers' Reports:
Meeting Location: George AA4GT announced that the American Red Cross has invited the club to use its facilities for our monthly membership meetings, and that he is in possession of a key to the building. The Red Cross people also inquired about the club installing a new tower and antenna. Space for a "permanent" club station will not be available, however, so if we intend to operate from there, we would have to bring our radios for that event only, and remove them when finished. Peter KK4PG remarked that the building is in need of some repairs, and we might be able to form a work party to accomplish some of those repairs, once they have been identified. In the meantime,

Bob W2HI will send out an email to all club members informing them of the new location.

WB2QLP Memorial Plaque: Joe K9KNW reported that we received an invoice for $40. for the memorial plaque for the Florida QSO Party for 2010, to be awarded to the "Top Florida SSB – In Memory of Jordan Marsh WB2QLP", which will be awarded at the Orlando Florida Contest Group Meeting at the Orlando HamCation on February 12th. It looks like this will be an annual request, and Joe suggested that this expenditure be brought up at a regular membership meeting to determine if the club members want to continue this sponsorship into the future. George AA4GT will bring the matter up at the February membership meeting.

Wednesday night Net: Bob W2HI reported that attendance at the Wednesday night Net has been extremely poor, with only 3-4 check-ins each week, and he questioned the advisability of continuing the net in the face of obvious non-support from the membership. After some discussion, it was decided to temporarily discontinue the Wednesday night net, and gauge the reaction from the membership. In the meantime, the Board revisited the situation concerning echo link net previously conducted on Tuesday nights by Harry KD4JMV, and decided to authorize Harry to resume that net on a trial basis, subject to operations conforming to FCC requirements and proper operating practices.

Old Business:

Dues Notices: Bob W2HI reported that the membership stands at approximately 77 members, with about 30 members not yet having paid their 2011 dues. He has been sending out reminder emails, and will send one more email in March to the 2010 members whose 2011 dues remain unpaid. In the meantime, Bob has requested that the insurance premium for the club's Comprehensive General Liability Insurance Policy be reduced in light of the lesser membership – apparently the premium is determined, at least in part, by the size of the membership. We are awaiting a response from the insurance company about a return premium.

New Business:

Tower availability: George AA4GT reported that the tall tower behind the former two-way radio shop on Davis Blvd. appears to be unused, and he was informed by someone that it has, in effect, "been abandoned". This would be an ideal location for the club to have a repeater antenna, and George will investigate further to determine who owns the tower, and if it is available for use by the club. Several questions need to be clarified, including the condition of the tower and the need for any repairs, whether we

could lease the entire tower or just space on the tower, insurance requirements, the existence of previous permitting, etc.

(Subsequent to this meeting George did determine that the original tower was knocked down by a County contractor about 13-15 years ago, and the County replaced the tower for Glen Faden with a new Rohn 55 tower. Glen said the tower was in very good shape when he left 4 years ago, and that the grounding system is 80 feet in the ground.)

Keewaydin DXpedition: Peter KK4PG agreed to coordinate the Keewaydin DXpedition planned for March 26th. This date was chosen by the membership at the November membership meeting so as to give northern members an opportunity to participate. Peter pointed out that the weather at this time of year is uncertain, and the date may have to be changed if poor weather prevails.

Also, Peter suggested that an alternative location might be considered where the use of a boat is not needed, such as a location at Goodland. He will investigate the possibilities of such a location change, and report back at the next meeting.

D-Star Repeater: Frank W4RBW reported he has not yet had an opportunity to discuss the possibilities of ARASWF taking over the County D-Star repeater on some sort of arrangement with the County, but he will do so as soon as possible and report back. (In the meantime, it has been reported by Fred KF4MJJ that the repeater has been re-installed at County Barn, but without access to the Internet.)

CERT: Peter KK4PG announced that he will be meeting with the County CERT coordinator to determine how ARASWF might assist their efforts. He will report back to the Board when he has more information.

Adjournment:
There being no further business, the meeting was adjourned at 3:00 pm.

Bob Graf, W2HI
Secretary

New Members

None this month

News Items

(From George (AA4GT))

Spectrum Management Bill Threatens Amateur Frequencies

On February 10, Representative Peter King (R-NY-3), Chairman of the House Homeland Security Committee, introduced HR 607, the *Broadband for First Responders Act of 2011.* The bill has been referred to the House Energy and Commerce Committee, which handles telecommunications legislation. HR 607 addresses certain spectrum management issues, including the creation and maintenance of a nationwide Public Safety broadband network. As part of that network, the bill provides for the allocation of the so-called "D-Block" of spectrum in the 700 MHz range for Public Safety use.

The D-Block consists of two, 5-megahertz-wide segments of spectrum (758-763 and 788-793 MHz) that became available when the FCC ended analog television broadcasts in June 2009 and reallocated the 698-806 MHz band for Public Safety and commercial broadband. It was anticipated that the D-Block would be auctioned for commercial use. There are several bills in Congress providing for the allocation of the D-Block for Public Safety use, and HR 607 is one of those. But HR 607 uniquely provides for the reallocation of other spectrum for auction to commercial users, in order to offset the loss of revenue that would occur as the result of the allocation of the D-Block to Public Safety instead of commercial auction. HR 607 lists the paired bands of 420-440 MHz and 450-470 MHz among the bands to be reallocated for commercial auction within 10 years of its passage.

"Of serious concern to the ARRL is the inclusion of the 420-440 MHz amateur allocation in the list of frequencies to be cleared for auction," said ARRL Regulatory Information Manager Dan Henderson, N1ND. "The ARRL and the Amateur Radio community certainly support the work of public safety agencies and understand their desire for an interoperable network; however, the inclusion of most of the amateur 70 cm spectrum as one of the replacement bands is illogical and unacceptable. The 420-440 MHz band is not Public Safety spectrum and should never have been included in any spectrum swap of Public Safety allocations."

Saying that the ARRL Washington team has already begun meeting with key Congressional staff on Capitol Hill, Henderson noted that Amateur Radio already shares the 70 cm band on a secondary basis with the governmental radiolocation services, such as the PAVE PAWS radar systems: "The 70 cm band is a critical and irreplaceable resource for Amateur Radio public service and emergency communications. The specification of the 420-440 MHz band in this legislation is ill-conceived. To be sure, the ARRL will vigorously oppose this legislation in its present form. It is, as evidenced by other legislation, completely unnecessary to the creation of a nationwide Public Safety broadband network or the use by Public Safety of the D-Block for that purpose. The role of the Amateur Service as a partner to Public Safety in the provision of

public service and emergency communications necessitates the retention of full access to the entire 420-440 MHz band."

HR 607 is presently cosponsored by the Homeland Security Committee's Ranking Member, Representative Bennie Thompson (D-MS-2) as well as Representatives Shelley Berkley (D-NV-1), Yvette Clarke (D-NY-11), Billy Long (R-MO-7), Candice S. Miller (R-MI-10), Laura Richardson (D-CA-37), Mike Rogers (R-AL-3), and Michael Grimm (R-NY-13).

"As we continue to track the progress of HR 607, I urge ARRL members to watch for further information about the bill on the ARRL website," Henderson said. "When that additional information is released, it will include a request to contact your representative and express opposition to HR 607, as long as it includes a provision to auction off any Amateur Radio spectrum for commercial use. ARRL members may also sign up for the *ARRL Legislative Update Newsletter* and automatically receive information as it becomes available. Sign up by logging onto the ARRL website and select the 'Edit Your Profile' link located at the top of each page. Once on that page, select the 'Edit Email Subscriptions" tab and click on the box for *ARRL Legislative Update*." The *ARRL Legislative Update* is prepared on an "as needed" basis to those who have opted-in to receive it. A new edition addressing HR 607 will be forthcoming soon.

(From Tim (KC4SSD))

…….dateline March 10th 2011……..location deep in the heart of Golden Gate…….

Here is one for the record books as far as my antennas go?? Linda called me around 10am and said the trees were blowing back and forth violently the she heard a loud crash. My antenna tower hit the roof. The wind only lasted for a very short period, 30 sec or so. If you look closely you will see where the tower middle section is actually spun 180 degrees before it fell. And yes that is my drop cables from FPL pole holding a portion of tower. The wind also broke the cable for the top section and completely pulled it out before coming down. It even pulled that section from the middle piece which actually has a welded stop?? The antennas are totally trashed and FPL needs to come out tomorrow to disconnect me before I dismantle the mess. Thanks to the extra loop we put in my meter box recently there was plenty of slack. It will be a long time before I am back on the air!
Tim KC4SSD

United States Early Radio History ((c)Thomas H. White) – a series of articles (continued)

(Click the hyperlinks for further reading)

Part 3 – Personal Communication by Wireless (1879 - 1922)

After Heinrich Hertz demonstrated the existence of radio waves, some were enchanted by the idea that this remarkable scientific advance could be used for personal, mobile communication. But it would take decades before the technology would catch up with the idea.

WILLIAM CROOKES AND DAVID HUGHES

Both the telegraph and the telephone transformed communications in the 1800s, and, at the close of the century, radio was poised to start a third revolution. Some of the earliest speculation about radio's future centered on the almost mystical idea of portable individual communication. In the opening remarks at the third annual dinner of the Institute of Electrical Engineers, held in London on November 13, 1891, the institute's president, William Crookes, spoke of the "bewildering possibility of telegraphy without wires, posts, cables, or any of our present costly appliances". In the February, 1892 issue of *Fortnightly Review*, Crookes' Some Possibilities of Electricity expanded on this theme, and looked forward to the day when two persons could use radio signals to privately communicate with each other. Crookes' review included one particularly arresting sentence: "...some years ago I assisted at experiments where messages were transmitted from one part of a house to another without an intervening wire by almost the identical means here described". J. J. Fahie contacted Crookes about this intriguing statement, and was told that the unidentified experimenter was David Hughes (who had been present at the Institute's annual meeting in November) and, who, beginning in 1879, apparently had transmitted and received radio signals, although he was discouraged from further research by reviewers who thought he had not done anything unusual. In 1899, Fahie convinced Hughes to write a short memoir of what he had accomplished twenty years previously, which was included in the Researches of Prof. D. E. Hughes appendix of *A History of Wireless Telegraphy*. A few months later Hughes was dead – his obituary appeared in the January 26, 1900 issue of *The Electrician*. Two decades after that, the March 31, 1922 issue of *The Electrician* carried an announcement in Wireless Notes (Hughes Equipment) that the inventor's original instruments had been found in a storage area, and put on display at the Science Museum in South Kensington. A photograph of some of this equipment appeared in World's First Wireless Outfit Found in London Tenement, from the August, 1922 issue of

Popular Science Monthly. It is interesting to speculate how history might have been changed had Hughes been encouraged to continue his original research.

PRE-RADIO DEVELOPMENT

Experimentation in "wireless telephony" included technologies that predated radio, employing such things as induction instead of the electromagnetic radiation used by radio transmissions. None of these earlier approaches achieved commercial success, although some came close. A. Frederick Collins was one of the better known experimenters along these lines, and two articles written by him, The Collins Wireless Telephone from the July 19, 1902 *Scientific American*, and Wireless Telephony from the March, 1905 *The Technical World*, reviewed photo-electric and induction systems developed by Collins, Alexander Graham Bell, and Ernest Ruhmer.

EARLY RADIO DEVELOPMENT AND SPECULATION

While radio communication was still at the fledgling stage, a commentator in the *London Spectator*, quoted in the November 4, 1901 edition of the *Los Angeles Times*, looked ahead to what The Wireless Age might bring, predicting that "Some day men and women will carry wireless telephones as today we carry a card case or camera." Guglielmo Marconi was soon experimenting with mobile communication, as reported in Military Automobile for Wireless Telegraphy from the July 27, 1901 *Western Electrician*, and in a speech to a New York City meeting of the Automobile Club of America, reprinted in the May, 1902, *The Cosmopolitan*, suggested that in the future Wireless Telegraphy from an Automobile would be a "handy thing for automobiles in general". Charles Mulford Robinson, in the June, 1902 *The Cosmopolitan*, speculated about the effect that unchaperoned Wireless Telegraphy communication would have on romance, and, more practically, suggested the new technology would ensure up-to-the-minute shopping lists. R. C. McPherson's 1902 ode to "his dear little pearlie" noted that "our hearts affection makes sure connection "By Wireless Telephone". Twenty years later, romance was still on people's minds, as a song published in 1922, Kiss Me By Wireless proclaimed "There's a wireless station down in my heart... operating just for you and me".

Five years after Crookes' article, Professor William Ayrton predicted that widespread personal communication using radio would eventually be developed -- a review of his thoughts, Syntonic Wireless Telegraphy from the June 29, 1901 *Electrical Review*, foresaw that someday "the calling which went on every day from room to room of a house" would be expanded into worldwide communication "extending from pole to pole", although "On seeing the young faces of so many present he was filled with green envy that they, and not he, might very likely live to see the fulfillment of his prophecy." (Ayrton died in November, 1908) Wireless Telephony, from the August 1, 1902 issue of *The Electrician (London)*, reported that "a number of scientists scattered all over the civilized world are eagerly seeking the solution to the problem of wireless telephony", and although so far there had been only limited success, "A future generation may conceivably accomplish as much in wireless telephony as is dreamed of to-day by visionaries." (This review also gently chided Prof. Ayrton for his earlier assertion that being unable to contact someone by wireless telephone would mean that person was dead -- perhaps it was just a case

of being temporarily unavailable for less dramatic reasons).

The development of compact radio receivers, especially the crystal detector, increased public speculation about personal telephones, although some foresaw disadvantages to being in constant contact with the outside world, as an editorial comment in the December 17, 1906 *New York Times*, A Triumph, but Still a Terror, asked "How will it be when we're told, not that somebody's 'on the wire,' but that somebody's 'on the air,' and we are exposed to answer calls from any part of the atmosphere?" In a section of Recent Developments in Wireless Telegraphy, from the June, 1907 *Journal of the Franklin Institute*, Lee DeForest made light of the idea of wireless telephone as premature. However, following the introduction of Poulsen arc-transmitters for audio transmissions, speculation increased in the period from 1907 to 1911, as promoters claimed that important advances were at hand -- for example, in the August, 1908 *Modern Electrics*, The Collins Wireless Telephone by William Dubilier suggested that in the near future "every auto will be provided with a portable wireless telephone" in order to call for help if the car broke down. Two years later, A. Frederick Collins was again featured, this time in Wireless Telephone Wizardry from the May, 1910 *Technical World Magazine*, as author Winston R. Farwell enthusiastically reported "It is now possible to talk without the use of wires with persons in distant parts of a building or in adjacent buildings regardless of the number and thickness of walls and floors intervening. One may take a wireless telephone on an automobile, a motor boat, a yacht, an airship or a submarine, into a caisson, a tunnel or a mine and be able to converse with others at any given point or points on the surface as freely and as plainly as one can now talk over a local telephone with nearby points." Actually the article was a little too enthusiastic, for during the next year Collins and some of his associates at Continental Wireless would be arrested for stock fraud, as the company's actual accomplishments did not match its broad claims. (In its February 12, 1910 issue, *Telephony* magazine had warned its readers about Collins' dubious reputation in Another Wireless Installation in the Stock Selling Campaign). And not too be left behind in the race to sell worthless stock, United Wireless, in R. Burt's The Wireless Telephone from the November, 1908 issue of that company's *The Aerogram*, foresaw broad advances in both personal communication and broadcasting, which would actually come years after the company had disappeared into bankruptcy.

By 1911, the lack of progress had triggered widespread skepticism, and when *Modern Electrics* reviewed Another Wireless Telephone in its October, 1911 issue, it noted dubiously that "the inventor displays the characteristic assurance of success". There were, however, continuing small advances, as Electric Auto as Wireless Station reviewed a successful radiotelegraph transmission, by W. B. Kerrick, from a car located outside Los Angeles, California, as reported in the July, 1911 *Technical World Magazine*. Also appearing in the same magazine was William T. Prosser's Wireless Telephone for Everybody, from the April, 1912 issue, which reviewed William Dubilier's high-frequency spark system, while the September, 1913 issue featured Edward J. McCormack's favorable report on Victor Laughter's work, also using high-frequency spark, in The Voice From the Air. But commercial success would continue to be elusive. However, some were still optimistic -- reporters employing wireless telephones to report stories, plus audio distribution of news "to a public too lazy to read" were just two of the New Journalistic Wonders Predicted by Robert Donald, President of the Institute of Journalists, at a New York address on

the future of the newspaper, as reported by the *New York Times* on August 19, 1912.

After a lull of a few years, the introduction of vacuum-tube transmitters reinvigorated the development of audio radio transmissions, and in January, 1916, *The Electrical Experimenter* looked ahead humorously to the day when people would find it impossible to escape being contacted, in The Wireless 'Phone Will Get You. (A. P. Herbert was even less happy, claiming that "wireless telephony seems to me to spell the end of civilization" in Modern Nuisances, from the August 7, 1920 *Living Age*. Seventy-nine years later, Peter Laufer's *Wireless Etiquette* reviewed this same phenomenon, now a reality, in The wireless as leash). In the U.S. Navy Department's 1916 annual report, Secretary Josephus Daniels reported in Communication by Wireless Telephony that a May, 1916 test had successfully "brought to reality the prediction made to the Secretary some time previously that the time would come when he could sit at his desk and converse with the captain of a ship at sea". In the March, 1917 *The Electrical Experimenter*, Wireless 'Phone for Hotel Plan reported on investigations by Pacific Coast hotels into the possibility of installing wireless telephones for guests to communicate with ocean liners. Alfred N. Goldsmith, in Future Development of Radio Telephony section of the 1918 *Radio Telephony*, predicted "a very rapid development", with the result that "it should become ultimately possible to keep in immediate touch with the traveling individual regardless of his motion or temporary location". Beginning in early 1919, General Electric worked with the U.S. Navy to test ship-to-shore communication on a series of transatlantic voyages, which provided seaboard radiotelephone service for President Woodrow Wilson, as detailed by Harold H. Beverage's Duplex Radiophone Receiver on U.S.S. George Washington from the October, 1920 *General Electric Review*. In the 1919 U.S. War Department Annual Report, Army Signal Corps head Major General George O. Squier talked of "the day which I believe is not far distant, when we can reach the ultimate goal so that any individual anywhere on earth will be able to communicate directly by the spoken word to any other individual wherever he may be". A. H. Grebe reported in The Auto Radiophone from the August, 1919 *Radio Amateur News* on his test installation of a wireless telephone in an automobile, meanwhile, anticipation was also increasing in Britain, as Pocket Wireless Soon, Predicts Marconi Official, which appeared in the August, 1919 *Electrical Experimenter*, reported that managing director Godfrey Issacs "foresees the day, not far distant, when pocket wireless telephones will be in wide use". And the November 7, 1920 issue of the Boston *Sunday Post* featured John T. Brady's Talking by Wireless as You Travel by Train or Motor, which noted "It is now possible for a business man to talk with his office from a moving vehicle", as it reviewed a test two-way radio conversation the author had with Harold J. Power, head of the American Radio and Research Corporation, while Power was in a moving automobile.

The January 18, 1922 *New York Times* announced, somewhat prematurely, the impending introduction of Wireless Telephones for Chicago Police in the form of a one-way paging service. Radiophoning To and From "L" Trains from the March, 1922 *Science and Invention* reviewed an experimental installation on the Chicago Elevated Railroad, and predicted that "Pretty soon... it will be possible for you to call your home while in transit and suggest what kind of meat you want for dinner." In Margaret Penrose's 1922 The Radio Girls of Roselawn (communication extracts), two characters discussed whether they might, pretty soon, "carry

receiving and sending sets in our pockets" which would allow them to "send or receive any news we wanted". Jessie is optimistic at first, declaring "It is going to be wonderful before long", and they might even be able to not only hear, but also see persons being talked to. However, later in the book she becomes more conservative, eventually dismissing the idea with "Oh! But that is a dream." And individual communication by radio was, in fact, still largely "a dream" at this time. In Radiotelephony and Wire Systems, from the January 7, 1922 *Telephony*, Henry Shafer calmed nervous telephone company executives by reviewing the "very substantial reasons why the radiophone cannot supplant the wire telephone systems". It wouldn't be until the 1980s that the technology needed for such things as pagers and wireless telephones would be perfected to the point that they became widely available consumer products. So, although the telephone's use for individual communication largely overshadowed its applications for distributing entertainment and news, the reverse would be true for radio, with broadcasting dominating for decades, before radio transmissions would be significantly developed for personal, mobile communication.

Part 4 – Radio at Sea (1891 - 1922)

The first major use of radio was for navigation, where it greatly reduced the isolation of ships, saving thousands of lives, even though for the first couple of decades radio was generally limited to Morse code transmissions. In particular, the 1912 sinking of the Titanic highlighted the value of radio to ocean vessels.

PRE-RADIO TECHNOLOGIES

Prior to the introduction of radio, maritime communication was generally limited to line-of-sight visual signaling during clear weather, plus noise-makers such as bells and foghorns with only limited ranges. Beginning in the mid-1800s, an international convention was developed using special semaphore flags to exchange messages between merchant ships, as reviewed by the The International Code of Signals section of the 1916 edition of Brown's *Signaling.* In the same book, Examination Paper on the use of the International Code of 1901 provided an overview of signaling proficiency that a candidate needed to master in order to qualify for a Certificate of Competency issued by the British Board of Trade Examinations. Over time an extensive vocabulary of signals was created, even as the expansion of radio was beginning to make visual signaling obsolete. The Urgent and Important Signals: Two Flag Signals section of *Brown's Signaling* reviewed over 600 basic signals, grouped by category, with meanings as diverse as "Where are you bound?" (SH), "In distress; want immediate

assistance" (NC), "Keep a good look-out, as it is reported that the enemy's war vessels are going about disguised as merchantmen" (OJ), and "Heave to or I will fire into you" (ID). And in addition to the two-flag signals, there were thousands of three- and four- flag groupings, for communicating a huge variety of messages, including ship identifiers, geographical names, temperature and barometer readings, compass points, and units of measurement. The thousands of signals in part resulted from an apparent attempt to include every possible variation of a phrase, *e.g.* BUP stood for "He, She, It (*or person-s or thing-s indicated*) had (has,*or*, have) not done (*or*, is, or, are not doing)", which is included in a small selection of these additional signals from the U.S. Navy's 1909 edition of The International Code of Signals. The development of radio resulted, by 1911, in the addition of two more visual signals -- ZMX for "Wireless telegraph apparatus" and ZMY for "Report me by wireless telegraphy" -- which heralded the beginning of a major decline in the use of seaboard visual signals. However, to this day ,*NC* continues to be an international distress signal when using flag signaling

In the 1872 edition of the annual *Journal of the Society of Telegraph Engineers*, Captain P. Columb's Visual Telegraphy. Signals of Distress, &c., in the Mercantile Marine reviewed the confusion and limitations currently encountered by ships trying communicate during emergencies, while suggesting that the "immediate object for the Telegraph Engineer... should be devising means for communicating at night, and in fog". Thomas Edison attempted to provide a solution in 1885, applying for a U.S. patent for a Means for Transmitting Signals Electrically, an invention with which he believed "signals can be sent and received between ships separated a considerable distance". (Although this system was designed to transmit wireless telegraph signals, it employed electrostatic induction rather than radio waves). Edison's was issued patent 465,971 in December, 1891, which caused a brief flurry of excitement--in its May, 1892 issue,*The Sailors' Magazine and Seamen's Friend* reprinted a short report from *The Marine Journal*, Sea Telegraphy, which proclaimed that "Once this device is in general operation, there is sure to be a remarkable decrease in loss of life at sea." However, the new system's range proved to be much more limited than expected, and was never put into commercial operation.

EARLY RADIO DEVELOPMENT

Just a few years after Heinrich Hertz's historic proof of the existence of electromagnetic radiation, the Notes section of the April 10, 1891 *The Electrician (London)* included a strikingly advanced suggestion, that someday lightships might use microwave beams to overcome the problem of fog interfering with shore communication. In a December, 1891 lecture given at Inverness, Scotland, Frederick T. Trouton returned to this topic, noting that "There is little doubt that a powerful beam of this sort would, unlike light, be unabsorbed by fog; so, looking into the future, one sees along our coasts the light-houses giving way to the electric house, where electric rays are generated and sent out, to be received by suitable apparatus on the passing ships, with the incomparable advantage that at the most critical time--*in foggy weather*--the ship would continue to receive the guiding rays." A similar prediction appeared in

the July, 1892 issue of *The New England Magazine*, as an extract from Elihu Thompson's Future Electrical Development stated "electricians are not without some hope that signaling or telegraphing for moderate distances without wires, and even through dense fog may be an accomplished fact soon", making possible a sort of radio-wave lighthouse. Similar ideas were expressed by A. E. Dolbear in The Future of Electricity from the March, 1893 *Donahoe's Magazine*.

Although it would turn out to take decades before practical microwave transmissions were developed, it was only a few years later that Marconi would introduce a successful system using long wave signals, and soon many of the larger passenger liners began carrying radio equipment. The addition of shipboard operators quickly captured the public imagination – The Work of a Wireless Telegraph Man, by Winthrop Packard, from the February, 1904 *The World's Work*, recounted the activities of a Marconi operator on the passenger liner *St. Paul*, at a time when shipboard radio transmitters were so rare that operators had to wait for other similarly-equipped vessels to come into range. The October 12, 1907 issue of *The Outlook* reported about initial tests of Wireless Telephones at Sea, conducted using DeForest equipment on the U.S. Navy's *Connecticut and Virginia*, noting that "The practical possibilities of these mysterious ways of communicating the voice and messages promise in the near future a practical reduction of the remaining perils of sea travel." Arthur D. Howden Smith reviewed the many contributions of assorted Men of the Wireless in the April, 1909 *Putnam's Magazine*. In the October, 1910 *The Railroad Telegrapher*, the Log of a Naval Wireless Telegrapher by an unnamed "correspondent", an experienced landline telegrapher recounted the frustrations of working at a coastal naval station, communicating with with poorly trained Navy radio operators along the northeast Atlantic coast, including one who wanted to "run my batteries down again to practice with him by telling him what I think of hams in general and him in particular". In the December 23, 1911 issue of *Chamber's Journal*, an unnamed Marconi Wireless operator reminisced about a decade of Life as a Wireless Telegraphist, including a time when mysterious printing by a tape-coherer receiver turned out to be due to the fact that "a big beetle was crawling about the relay of the receiver". Sparks of the Wireless by Walter S. Hiatt in the April, 1914 *Scribner's Magazine* took a romantic view of the life of radio operators on ocean-going vessels, declaring "The youths of the world are running away to sea again".

COMMERCIAL SERVICE

Radio on the high seas soon developed practical applications. Wireless Telegraphy on Mail Steamers, from the November 19, 1904 *Electrical Review*, featured Emile Guarini's overview of radio telegraphic operations by mail packets running between Ostend, Belgium and Dover, England. Wireless Tracking of Fish, from the December 1, 1906, *Electrical World*, reported that six Atlantic Coast vessels of The Fisheries Company had been outfitted with DeForest equipment, so they would be able to "notify each other and all assemble without delay to the location where the fish are being caught". By 1912, when Francis A. Collins' *The Wireless Man* was published, all the major passenger liners were equipped with radio transmitters. In the opening chapter of this book, Across the Atlantic, Collins reviewed how radio now kept vessels on transatlantic voyages in nearly constant communication with shore stations and each other.

Initially large passenger liners were the primary commercial ocean-going vessels to install radio transmitters. But in the 1913 edition of Marconi's annual *The Yearbook of Wireless Telegraphy and Telephony*, Wireless Telegraphy and the Mercantile Marine promoted the money-saving benefits of radio for smaller ships, proclaiming that "Wireless telegraphy is now recognized as an essential part of the equipment of ocean-going passenger vessels, and, to a rapidly increasing extent, of cargo vessels and smaller craft." The 1916 edition of *Brown's Signaling* noted that "Any book dealing with signaling in general is incomplete without a reference to wireless telegraphy which, for mercantile signaling, offers so many advantages over other methods of signaling" in its The Quenched Spark System section, which featured a shipboard installation offered by Siemens. The General Information chapter of Percy S. Harris' 1917 book, *The Maintenance of Wireless Telegraph Apparatus*, covered the basics for operating a Marconi shipboard radio installation, in part noting that "Nothing is more irritating than to find, when the point of a pencil suddenly breaks, that there are no sharpened pencils in reserve."

After World War One, the development of vacuum-tube transmitters made radio telephones practical, and the April, 1922 issue of AT&T's *Long Lines* magazine reviewed an early experiment by that company in Telephoning to Sea, between a land station located at Deal Beach, New Jersey and the S. S. *America*.

SOS DISTRESS CALL

In 1905, the distinctive Morse code character string ...---... (SOS) was adopted by Germany for signifying distress, as reported in German Regulations for the Control of Spark Telegraphy, from the May 5, 1905 issue of *The Electrician*. (A German-language account of the adoption of the April 1, 1905 regulations appeared in the April 27, 1905 issue of *Elektrotechnische Zeitschrift*: Regelung der Funkentelegraphie im Deutschen Reich). In 1906, SOS was adopted at the Berlin Radiotelegraphic Convention as the official international standard for distress calls, although Marconi operators in particular were slow to conform -- G. E. Turnbull's Distress Signaling, from the 1913 edition of the annual *The Yearbook of Wireless Telegraphy and Telephony*, noted that the Marconi companies had adopted "C.Q.D." as a distress signal in 1904, only to have it supplanted by the international ratification of "SOS" two years later. Turnbull reports that even after this some of the old-time Marconi operators continued to use C.Q.D. for a time, although "The change of the call letter is, however, a sentimental regret, and 'C.Q.D.' is being gradually forgotten." However, in 1909 not all the Marconi operators had made the switch, reflected by the title of Alfred M. Caddell's article about sinking of the *Republic*, CQD, which appeared in the April, 1924 issue of *Radio Broadcast* magazine. The February, 1909 issue of *Modern Electrics* printed a transcript of radio communication related to this event in Operator Binns' Wireless Log. And a review by *Baltic* Captain J. B. Ranson of the twelve long hours it took to find the *Republic*, The Triumph of Wireless from the February 6, 1909 issue of *The Outlook*, included Ranson's opinion that, due to recent scientific advances -- especially radio communication -- "the passenger on a well-equipped transatlantic liner is safer than he can be anywhere else in the world." (Because three-dashes in American Morse stood for the digit "5", unlike International Morse where it stood for the letter "O", in some U.S. practice the distress signal

was referred to as "S5S", for example, "S 5 S" Rivals "C Q D" for Wireless Honors, from the February, 1910 *Popular Mechanics*.)

RADIO USE DURING EMERGENCIES

Radio greatly reduced the terrible isolation of ships during emergencies, and was quickly responsible for saving thousands of lives. Notable Achievements of Wireless, from the September, 1910 *Modern Electrics*, reviewed early cases where radio had provided maritime assistance, beginning with the January, 1909 sinking of the *Republic*. *Radio Broadcast* later ran two articles about SOS emergencies which had occurred in the 1910s, written by George F. Worts under the heading "Adventures of a Wireless Free-Lance". My First SOS--A Farce Comedy was humorous, while A Thrill that Came Thrice in a Night-time reviewed a series of events which saw both rescue and tragedy. Some Stirring Wireless Rescues, a chapter from Francis A. Collins' 1912 *The Wireless Man*, reviewed a number of incidents which had occurred over the previous three years, while noting that radio had changed things so much that an "up-to-date Robinson Crusoe", instead of facing years of isolation after a shipwreck, would now be able to radio for help, then listen to the latest stock market quotations while awaiting rescue. However, radio did not eliminate all the fatalities, as American Marconi's J. Andrew White, in the July, 1915 *The World's Advance*, reported the dedication of A Memorial Fountain to Wireless Operators, which commemorated ten operators who had lost their lives at sea. A February 1, 1916 pamphlet issued by the Department of Commerce, *Important Events in Radiotelegraphy*, included an extensive section, Wireless as a Safeguard to Life at Sea, reviewing radio's use in seagoing emergencies and rescues.

One of most dramatic sea disasters was the sinking of the *Titanic* in the North Atlantic on the morning of April 15, 1912. The *Titanic* -- along with the *Carpathia*, which picked up the survivors -- was staffed by Marconi Wireless operators, and Marconi shore stations along the Canadian, Newfoundland, and U.S. coasts handled most of the communication as the *Carpathia* slowly made its way to New York City. In addition, many inland stations tried to get information about the disaster, which in this unregulated era resulted in extensive interference and confusion. Included in all this was the American Marconi equipped facility, MHI, located atop the New York Wanamaker department store, where David Sarnoff was station manager. Sarnoff would later vastly exaggerate his importance, in progressively embellished retellings, including completely false claims that he was first in the United States to hear of the disaster, and that President Taft silenced other stations so that Sarnoff could become the sole link for gathering information. However, the operators at the New York Wanamaker station did spend long hours listening for reports and survivor lists. A collection of extracts about the *Titanic* comes from the Boston *American* and recounting s by David Sarnoff: The *Titanic* and the New York Wanamaker Station. Marconi management also sent messages to the operators aboard the *Carpathia*, telling them to limit what they were publicly reporting, until their accounts could be sold to the newspapers. These activities, plus a complaint that the operators aboard the *Carpathia* were unresponsive to Navy vessels sent by U.S. President Taft, were covered by the New York *Herald*: Marconi Company and *Titanic* Disaster Communication. Amateur radio operators were blamed for much of the chaos experienced immediately after the *Titanic* sank, but it has never

really been clear how many of the problems were actually their fault. In 1922, in The Book of Radio (Titanic extract), Charles William Taussig wrote about the next evening after the *Titanic* sank, as amateur operators, voluntarily responding to the emergency, scrupulously maintained complete radio silence in the New York City area, in order to avoid interfering with the survivor lists being transmitted by the *Salem*.

SHIPBOARD NEWSPAPERS

One area where radio's revolutionary effect on ocean-going communication was readily apparent was when shipboard newspapers started to include daily news summaries. As early as 1899 Guglielmo Marconi used on-board reception in order to prepare a shipboard newspaper, as reported in A Wireless Telegraphy Newspaper, from the November 22, 1899 *Electrical Review*. Regular nightly summary news transmissions by Marconi shore stations followed, beginning in June, 1904 -- their introduction was reported in Mid-Sea Wireless Telegraph News, from the May, 1904 *The Electrical Age*. Thanks to radio, the late 1906 issues of the S.S. Hamburg's on-board newspaper, *The Atlantic Daily News*, featured news reports "received by Special Marconigrams", and passengers were also notified that they could send telegrams to nearby ships and shore stations.

(continued next month)

Trading Post

For Sale:

3 (three) 10 foot sections and one top section of Rohn 25 @ $25.00 each
Please contact Thom (N5KFR) here!

For Sale:

Heil Pro Headset. Has 1 ear phone with adjustable mic. I believe has the HC5 cartridge. Excellent condition. $90.00

Small Heil desk mic with small diameter adjustable boom. Has the HC5 cartridge. $35.00

HyGain 18AVQII trap 10-80m vertical. Almost new. $160.00

Car/truck trailer hitch carrier. All aluminum. Will carry 2 bicycles or other equipment. $100.00

Jim Ackerson (K4PNJ) 239 649 5553

Club Information

Meeting Time: 4th Tuesday 7:00pm

American Red Cross
2610 Northbrooke Plaza Drive
Naples FL

Club Repeater: WB2QLP
146.670 (-600) PL 136.5
EOC Repeater:WB2WPA
147.030 (+600)

Club Web Site:
http://www.araswf.org

President: AA4GT
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Vice President: N1DL
Karl
Secretary: W2HI
Bob
Treasurer: K9KNW
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