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GEORGE JACOBS & ASSOCIATES, INC.

MAR 19 1993

GEORGE JACOBS & ASSOCIATES, INC.

ET Docket No. 93-198

Page 2

and:

George Jacobs & Associates, Inc.

Reply comments should be addressed as follows:

George Jacobs & Associates, Inc.
Consulting Broadcast Engineers
8701 Georgia Ave. Suite 410
Silver Spring, MD 20910

who certifies that the independent comments were prepared under the authority of contractual agreements with

encouraged to grow.

- That any assessments of future technical changes or alternative methods to shortwave broadcasting must take into account the world's population of an estimated 600 million shortwave radios, and the directness, immediacy, intimacy, universal free access and relative cheapness of this international medium.
- That the existing relationship between the government and the private sector in the field of international broadcasting, as defined in the First Amendment of the Constitution and in Public Law 80-402, has successfully stood the test of time, and must continue to be respected and observed.
- That the present frequency usage fee levied uniquely against FCC-licensed International Broadcast Stations should be rescinded because it is discriminatory and unfair. It is an unwarranted impediment to private sector shortwave broadcasting.
- That the FCC should be required to improve its service to its shortwave broadcast licensees and, in particular, attend seasonal frequency coordination meetings to protect the interests of its licensees. If this is not possible, alternative procedures should be explored.
- The US should initiate and support adequate international H.F. spectrum allocations and planning for shortwave broadcasting, within which the spectrum requirements for US government funded and privately licensed broadcasters will be met.
- Until such allocations become a reality, the government should continue to permit and encourage the use by US shortwave broadcasters of the conditional allocations agreed to previously at WARC-79 and WARC-92, on a non-interference basis (NIB), and to make available on a similar NIB basis, other portions of the H.F. spectrum which may be lightly loaded.
- A more effective preparatory procedure must be established for the private sector and the government agencies to communicate and work directly and openly together in formulating overall US positions and policies for future international radio conferences.

Response to FCC Notice of Inquiry

Based upon our previous position summarized above, we strongly support the FCC recommendation to include the High Frequency Broadcasting Service on the Agendas of following World Radiocommunication Conferences (WRC): **WRC-93, WRC-95 and WRC-97.**

The uncompleted work of WARC-87 and WARC-92 mandate that H.F. Broadcasting be included on the Agendas for WRC-93, WRC-95 and WRC-97. Specifically, these Conferences must continue to discuss allocations, and frequency coordination and regulatory procedures which are vital to the future effectiveness of the H.F. Broadcasting Service.

The historical political changes of the past few years, the cessation of Soviet jamming of H.F. broadcasts, the reassessment now underway by many of the world's largest broadcasting organizations all appear to be producing a favorable climate. for the first time since the end of World

in this procedure on behalf of its licensees, although both U.S. Government broadcasting organizations (VOA and RFE/RL) do participate. We urge in the strongest terms that the Commission attend international frequency coordination ~~participation to protect the interests of its licensees~~

4-. The December 31, 2015 date adopted by WARC-92 for the introduction of single sideband (SSB) in the H.F. Broadcasting Service and the cessation of double sideband (DSB) in all bands is a provisional date based on the availability of a large worldwide population of radios capable of receiving SSB broadcasts on H.F. Resolution 517 (WARC-87) states that this date "... shall be periodically reviewed by a competent future world administrative radio conference in light of the latest available complete statistics on the world-wide distribution of SSB transmitters and synchronous demodular receivers, and that at least one such review shall be carried out before the year 2000". WRC-95 and WRC-97 would seem to be appropriate and timely forums in which such reviews could be made.

In summary, we strongly urge addressing the H.F. Broadcasting Service at WRC-95 and WRC-97 on the basis of the changed, and more favorable world political situation that now exists, the cessation of Soviet jamming, the need for the release of additional spectrum which was allocated at WARC-79 and WARC-92, the need to develop a frequency planning procedure based on coordination principles rather than to continue attempts to develop an a priori plan, which has not proved realistic in the past, and the need to confirm or change the date for the introduction of SSB in the H.F. broadcasting bands, based on world-wide statistics on the availability of suitable radios.

U.S. Planning for WRC-95 and Beyond

The Dual FCC/ IRAC Policy Mechanism

In planning for international radio conferences, the FCC, as a regulatory Agency, has the responsibility for representing the interests and views of its private sector licensees. Government agencies generally formulate their policies within the Interdepartment Radio Advisory Committee (IRAC). The FCC participates in the IRAC deliberations as the representative of the private sector.

In theory this dual procedure would appear to be effective, but in practice it can break down. The preparation for WARC-92 is a case in point so far as it concerns US planning for the H.F. Broadcast Service.

WARC-92 Preparation

The creation by the FCC of a WARC-92 Industry Advisory Committee (IAC) and the associated Notice of Inquires, in our

opinion, were very effective methods for soliciting directly the views of the private sector licensees. While these deliberations were conducted in complete openness, with both private sector and government participation, planning within the IRAC was held, for the most part, behind closed doors and were of a classified nature. While the FCC did attend the IRAC meetings, the Commission was often restricted by security classification from keeping the IAC informed on what was developing within the IRAC. In effect, concerning the HF spectrum policies for WARC-92, there was little direct and open dialogue between the private sector interests and those of Government agencies. This resulted in final US HF spectrum positions and proposals for WARC-92, which, in our opinion, did not reflect nor serve or protect the best interests of US shortwave broadcasting. They largely ignored the recommendations of the IAC.

The IAC, in its final report to the FCC, recommended additional allocations for the HF Broadcasting Service amounting to 2,825 kHz. Unknown to the IAC members at the time that the final report was being drafted, the FCC had already agreed secretly within the IRAC to a much smaller allocation of 1,325 kHz. It is our opinion that the FCC did not represent effectively the private sector interests within the IRAC, and made a sham of the time, energy and expense of the industry experts who gave so generously of their time and experience.

Future International Radio Conference Preparation

A more effective procedure must be established for the private sector and the government agencies to communicate and work directly with each other openly in formulating overall US positions and policies for future international radio conferences. One approach to consider for WRC-95 planning would be to continue the present method of the FCC coordinating private sector planning, and the IRAC coordinating the planning by government agencies, but create a third entity where the private sector would have a direct dialogue with government agencies in weaving together differing views in order to develop unified, effective overall US policies and positions. In any event, the behind the scenes and secretive actions taken by the FCC in planning for WARC-92 must not be repeated.

Respectfully Submitted on behalf of:

**Adventist Broadcast Service, Inc. (KSDA)
Eternal Word Television Network (WEWN)
Gulf South Broadcasting, Ltd. (WRNO)**

**Herald Broadcasting Syndicate, Inc (WCSN, WSHB, KHBI)
High Adventure Ministries (KVOH)
LeSea Broadcasting Corp. (WHRI, KWHR)
Trinity Broadcasting Network (KHBN)
Two If By Sea Broadcasting Corporation (KCBI)
George Jacobs & Associates, Inc.**


George Jacobs, P.E.
President

**Attachment: Reply to NTIA NOI Docket # 920532-2132
Dated November 6, 1992**

GEORGE JACOBS & ASSOCIATES, INC.
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8701 GEORGIA AVE., SUITE 410
SILVER SPRING, MD 20910

GEORGE JACOBS, P.E., *President*
MEMBER AFCCE

TEL (301) 587-8800
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November 6, 1992

TO: Office of Spectrum Management
NTIA, U.S. Dept. of Commerce, Room 4099
14th St. and Constitution Ave., NW
Washington, D.C. 20230
ATT: W. Russell Slye

Re: Notice of Inquiry

DOCKET NUMBER: 920532-2132

Current and Future Requirements for the Use
Of Radio Frequencies in the United States

Transmitted herewith is an original and five copies of my comments in response to the referenced Notice of Inquiry.

Qualifications of Respondent

I am George Jacobs, P.E. a Registered Professional Engineer in the District of Columbia and in the State of Maryland. I have fifty two years of experience in the field of high frequency (or shortwave) broadcasting. Thirty three of these years represent government service as an Engineering official with the Voice of America and the Board for International Broadcasting. As Chief of VOA's Frequency Division I participated in the conceptional design and implementation of VOA's overseas broadcasting network.

As Director of Engineering at BIB I was responsible for overseeing the technical modernization of RFE/RL.

I have participated in the formulation of U.S. policies and plans for every major Radio Conference dealing with H.F. Broadcasting convened by the International Telecommunication Union since 1948. In 1984, I was appointed as a Member of the Presidential Commission on Broadcasting to Cuba.

I retired from the Senior Executive Service in 1980, and since then I have been President of George Jacobs and Associates, Consulting Radio Engineers. In this capacity I have provided consultative services in the conceptional design, application filing and frequency management for the

following FCC-licensed International Broadcast Stations: WRNO (New Orleans, LA); WSHB (Cypress Creek, SC); WCSN (Scotts Corner, ME); WHRI (Noblesville, IN); KTBN (Salt Lake City, UT); KVOH (Rancho Simi, CA); KHBI (Saipan); KSDA (Guam); KHBN (Palau), KCBI (Dallas, TX) and WEWN (Birmingham, AL).

Based upon my experience in both the public and private sectors of International Broadcasting, I wish to submit the following comments relative to Paragraph 28 (Broadcasting and Broadcasting Satellite Services) and Paragraph 78 (International Radio Conferences) in the referenced Notice of Inquiry.

Summary: How Can Government be of Assistance?

In summation, my comments support government assistance in protecting and promoting the interests of private sector shortwave broadcasters in the following ways:

- To continue to recognize that US private sector shortwave broadcasting is a practical demonstration of the freedom of speech, the free flow of information and the free enterprise system in action; crucial parts of the infra-structure upon which any democratic society must be based, and that it is in the national interest for such broadcasting to continue and to be encouraged to grow.
- That any assessments of future technical changes or alternative methods to shortwave broadcasting must take into account the world's population of an estimated 600 million shortwave radios, and the directness, immediacy, intimacy, universal free access and relative cheapness of this international medium.
- That the existing relationship between the government and the private sector in the field of international broadcasting, as defined in the First Amendment of the Constitution and in Public Law 80-402, has successfully stood the test of time, and must continue to be respected and observed.
- That the present frequency usage fee levied uniquely against FCC-licensed International Broadcast Stations should be rescinded because it is discriminatory and unfair. It is an unwarranted impediment to private sector shortwave broadcasting.
- That the FCC should be required to improve its service to its shortwave broadcast licensees and, in

particular, attend seasonal frequency coordination meetings to protect the interests of its licensees. If this is not possible, alternative procedures should be explored.

- The US should initiate and support adequate international HF spectrum allocations and planning for shortwave broadcasting, within which the spectrum requirements for US government funded and privately licensed broadcasters will be met.
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- A more effective preparatory procedure must be established for the private sector and the government agencies to communicate and work directly and openly together in formulating overall US positions and policies for future international radio conferences.

Comments
Paragraph 28

Broadcasting and Broadcasting Satellite Services.

A. Radio Signals Mightier Than Nuclear Weapons:

The high frequency or shortwave broadcasting efforts of the USA and its free World allies over the past half century very dramatically share in the credit for the recent unprecedented political changes in Eastern Europe and what had been the Soviet Union. This was accomplished without firing a shot, without dropping nuclear devices, without a world holocaust, and at a cost of pennies when compared to the estimated costs of a military effort to achieve the same results. To reword an old adage using modern terminology "The radio signal is mightier than a nuclear weapon !"

In the field of human communications, shortwave broadcasting has proven its very important and unique role.

B. Direct, Immediate, Intimate, Vast World Audience, and Cheap.

Reflected from the ionosphere, a gaseous region high in the earth's atmosphere, shortwave broadcasts freely cross frontiers, span continents and bridge oceans to reach listeners immediately, and directly within their own homes. No electronic device or other potential control or constraint stands between the sender and the receiver. The broadcasts do not require the agreement of the recipient country, nor are they dependent upon relays by satellites or terrestrial facilities. It is this directness, immediacy and intimacy that makes shortwave broadcasting unique among the many forms of international information media. Unlike other media of communications; books, newspapers, magazines, motion pictures, etc., shortwave broadcasts cannot be stopped at frontiers, refused an entrance permit, confiscated, delayed or censored. They must always enter a listener's home as an invited guest, to be admitted or rejected by the simple flick of a switch or the turn of a radio dial.

Besides being direct, immediate and intimate, there is a vast worldwide shortwave audience. A recent study conducted by the Voice of America places the estimated number of shortwave radios throughout the world at 600 million. A recent BBC study places the number of listeners who tune in daily at near 200 million.

First introduced by the BBC and Radio Netherlands nearly sixty-five years ago, more than 100 countries presently broadcast on shortwave, using a total of more than 1,700 transmitters daily. Despite the advanced development of conventional AM and FM broadcasting and television, shortwave is still very much alive. Why? What is there about shortwave broadcasting that continues to make it attractive

in this high-tech age? During last year's Gulf War, for example, the electronic stores throughout the world sold out their supply of shortwave radios, and manufacturers could not supply enough to meet the demand. It seemed that listeners everywhere who could not watch CNN on television, wanted to tune into shortwave to listen directly to broadcasts from Baghdad, Washington, London, Cairo and the world.

Besides directness, immediacy, intimacy and a huge potential audience, shortwave radio is relatively simple and cheap. All countries, big and small alike, affluent and poor, have equal and free access to the ionosphere. Unlike satellites there is no charge for using the ionosphere. Nor are complicated earth stations or costly radios required to receive shortwave broadcasts. The state of the art is such that small but powerful digitally-tuned, micro-processor controlled shortwave radios are now available costing \$50 or less.

Shortwave, or high frequency broadcasting continues to be the purest expression of the universal free flow of information, and it is likely to continue for well into the 21st Century!

C: New Technologies For Shortwave Broadcasting:

The continued popularity of shortwave broadcasting is not to say that shortwave can't be improved. Reception is often subject to fading and noise; shortwave is not high fidelity. There aren't enough channels to go around so the 1700 existing stations are crowded into one another, with resulting interference. And until recently, the shortwave bands were a battleground for the forty year Cold War, with barrages of round-the-clock, high power propaganda broadcasts criss-crossing between east and west, and on top of this, the overpowering and irritating noises of intentional jamming networks run by the Soviets, mainland Chinese, east European countries and others. But the shortwave environment is improving. The end of the Cold War has brought an end to most jamming, and a considerable reduction in propaganda broadcasts. To reduce crowding and

interference, additional spectrum was allocated at the recently held WARC-92 conference. (This will be discussed in more detail later in this reply).

State of the art improvements are taking place on shortwave as in other areas of broadcasting. High power transmitters are now more efficient than ever before, with several manufacturers claiming an overall efficiency of nearly 75%. Recent research has led to the manufacture of antennas with higher gains than previously possible, and with greater capability for "molding" the radiation to provide a stronger, more reliable signal to an intended area of reception. Radios are being designed so that they are becoming smaller, cheaper, and easier to tune on shortwave.

Direct to the home digital sound broadcasting (DAB) from satellites is often suggested as a potential replacement for shortwave broadcasting, offering a promise of greater signal reliability and quality to a listener. But considering that frequency allocations differ in the world, that spectrum planning is scheduled for no earlier than 1998, that systems have yet to be established, that consent of recipient countries will be required, and that radios will have to be mass produced for worldwide distribution at a price competitive to shortwave radios, the reality of direct to the home DAB satellite svstems may be decades away. But, even if

D. The Relationship Between US Government and Private Sector International Broadcasting Stations:

The United States stands almost unique in the world, as it is one of a very small number of countries that permits the private sector to participate in broadcasting to an overseas audience on shortwave. The genesis of private sector shortwave broadcasting, as it is for all broadcasting in the United States, is the First Amendment of the U.S. Constitution.

Privately owned shortwave broadcast stations have flourished in the U.S. since the first was licensed in 1927. In the 1930's, when shortwave broadcasting began to develop in this country, it was supported entirely by the private sector. Stations were licensed to the large radio networks (NBC, CBS, Westinghouse, and Crosley) who used shortwave broadcasting as international extensions of the national networks. Also among the very early licensees were the Worldwide Broadcasting Foundation, a religious organization that operated WRUL, and the General Electric Company. The

US Government did not enter the field of shortwave broadcasting until the outbreak of World War II. Shortly after the attack on Pearl Harbor, wartime powers were invoked for the government to take over the operation of all privately- licensed shortwave broadcast stations in the U.S. for the duration of the war.

E. Public Law 80-402

With the end of World War II, in 1948 the U.S. Congress legislatively defined the post-war relationship between the government operated Voice of America and privately-licensed international broadcast stations. Referred to as the United States Information and Educational Exchange Act (Public Law 80-402) the latest version appears in the United States Code Annotated as Title 22, Chapter 18. The Act's stated objectives are to promote a better understanding of the United States in other countries, and to increase mutual understanding between the peoples of the United States and the peoples of other countries. In reference to shortwave broadcasting, it reaffirmed the post war continuation of the Voice of America by authorizing the implementation of a government radio service to disseminate abroad information about the United States, its peoples and its policies. On the other hand, Paragraph 1462 of the Act is careful to protect the integrity of private international broadcast stations by prohibiting the government from monopolizing the production or sponsorship of shortwave broadcasts and by requiring the government to reduce its information activities whenever

corresponding private information dissemination is found to be adequate. Most importantly, and covering a broader range of media, Paragraph 1437 states that in carrying out this Act it shall be the duty of the government to utilize, to the maximum extent practicable, the services and facilities of private media agencies, including existing American press, publishing, radio, motion pictures and other agencies, through contractual arrangements or otherwise. This paragraph further emphasizes that it is the intent of Congress that the government shall encourage participation in carrying out the purposes of this Act by the maximum number of different private agencies in each field consistent with the present or potential market for their services in each overseas country.

With the First Amendment guarantee, and the protection and encouragement of Public Law 80-402, private sector international broadcasting on shortwave has grown at a healthy pace during the past twenty five years. For example, the Federal Communications Commission (FCC) presently licenses at least twenty private international broadcast stations, which are responsible for operating a total of forty transmitters extending across the entire breadth of the United States from Maine to Guam and Saipan, and whose broadcasts reach into every area of the world.

The relationship between the government and the private sector in the field of international broadcasting is well defined and has successfully stood the test of time. It must continue to be respected and observed.

F. Promoting Democratic Ideals:

The attraction of shortwave broadcasting as a governmental medium throughout the world for information and propaganda, as a weapon in ideological and political conflicts, and as an instrument of foreign policy has led to the funding and control by governments of most of the 1700 shortwave broadcast transmitters presently on the air throughout the world. The United States is one of a very small number of countries that permit the private sector to engage in international shortwave broadcasting unfettered by government control or influence. This alone is a powerful demonstration to the world of our deep belief in democratic ideals, the free enterprise system, and the universal free flow of information and openness.

Part 73.788 of the FCC Rules & Regulations [3] states that a licensee of an international broadcast station shall render only an international broadcast service which will reflect the culture of this country and which will promote international goodwill, understanding, and cooperation.

The FCC licensed private international broadcast stations offer a wide spectrum of programming which falls within the general FCC umbrella definition. These stations are truly an electronic market place for news and information, an arena for religious and spiritual discussion, a vehicle for sports and entertainment, a channel for the dissemination of a wide variety of serious and popular cultural programs to suite many tastes, and an alternative to government funded and influenced broadcasts.

These broadcasts are a practical demonstration of the freedom of speech, the free flow of information and the free enterprise system in action; crucial parts of the infrastructure upon which any democratic society must be based.

G. FCC Fee Schedule for Frequency Usage:

Paragraph 73.768 of the FCC Rules and Regulations places such heavy restrictions on shortwave broadcast commercial advertising that in effect they are public service stations, with little possibility for commercial profit. In addition, most of the FCC-licensees, through their religious status, are non-profit, tax exempt entities under the Internal Revenue Code. In the initial FCC fee structure of 1986, FCC-licensed International Broadcast Stations were exempt from fees along with non-commercial FM, TV and AM stations. In a revised fee schedule, mandated by Congress in the Omnibus Budget Reconciliation Act of 1989, and which went into effect on May 21, 1990, a fee has been levied against International Broadcast Stations for the first time, although non-commercial AM, FM and TV stations continue to be exempt.

The fee is not inconsequential. It amounts to \$140 a year for every hour of daily broadcasting for each transmitter in service. The two largest licensees will pay as much as \$40,000 and \$20,000 a year respectively, and even the smallest of stations face a fee in excess of \$1,500 annually. Since these stations are basically public service and non-profit, this additional expense may force a corresponding reduction in broadcasting.

There are some other ironic twists to the new fee structure. The government shortwave broadcasters VOA, RFE and Radio Liberty are exempt from the fee, although one might interpret P.L. 80-402 as requiring equal treatment between the government and private sector stations. Another twist is that the fee has been designated by Congress as a "user fee", to repay the Treasury's general fund for governmental services received, in this case from the FCC. However, due to budgetary shortfalls at the FCC, the services provided to International Broadcast Stations have been cut back severely.

Less than one man year is devoted to servicing these stations, and FCC representation at critical seasonal frequency coordination meetings with selected foreign broadcasters has been suspended. By not attending such meetings, the Commission is unable to fully protect the frequency assignment interests of U.S. private broadcasters, placing them at a disadvantage in efforts to utilize scarce, effective frequencies. The International Broadcast Service is the only FCC- licensed broadcast service required to pay a frequency usage fee.

I believe that this fee is unfair and without basis considering that other FCC broadcast licensees and government financed stations continue to be exempt. It is an unwarranted impediment to private sector shortwave broadcasting, and it should be rescinded by the government. Additionally, the FCC should be required to improve service to its shortwave broadcast licensees and attend seasonal frequency coordination meetings, or alternative procedures should be explored for protecting the interests of US private shortwave broadcasters.

H. The Frequency Shortage:

The single, greatest impediment in gaining access to a foreign audience for shortwave broadcasts is the serious shortage of frequencies or broadcast channels. During the more favorable morning and evening listening hours, the number of stations broadcasting to some areas of the world exceed by as much as three to six times, the number of available channels. This results in an exceptionally high level of broadcast congestion and interference, and related degradation of reception. US licensed HF broadcasters must often change frequencies several times a day to avoid interference, thus breaking program continuity and inconveniencing worldwide audiences. Additional spectrum is required to permit current licensees to expand their hours of operation and to provide services to additional areas. Additional spectrum will also be required to satisfy the needs of future HF broadcasting stations.

The International Telecommunication Union has attempted since 1948 to equitably plan the shortwave spectrum allocated to the broadcasting service, so that each station throughout the world could broadcast on a clear channel. Despite more than a half dozen international conferences called by the ITU for this purpose during the past fifty years, the most recent being WARC-92, all attempts to plan this spectrum have failed to date. Failures have been due primarily to the fact that

allocated for H.F. broadcasting.

Data appearing in an NTIA report, "Spectrum Required for HF Broadcasting, TR90-268", clearly indicate the additional spectrum allocations required to more evenly match the supply of frequencies with the broadcasting demand. The Executive Summary of the report states:

" Three important results are obtained from this analysis of the J90 requirements when considering all HF bands. First, the DSB system needs approximately three to four times as much HF spectrum as that currently allocated to broadcasting. Second, the proposed compatible SSB system needs approximately two to three times the currently allocated spectrum. And third, there exists a significant likelihood that time-sharing of the HF bands between broadcast and non-broadcast services is feasible on a non-interfering basis."

In preparation for WARC-92, the FCC established an Industry Advisory Committee (IAC). The IAC was composed of leaders from the US telecommunication and broadcasting industries, who gave of their time and experience generously and on a volunteer basis. Policy recommendations for the HF spectrum were the responsibility of Industry Working Group-1 (IWG-1) of the IAC. IWG-1 consisted of representatives from each of the services licensed by the FCC to utilize the HF spectrum.

In an extraordinary spirit of understanding and cooperation, and after much thought and deliberation, IWG-1 recommended that US policy for WARC-92 include an additional allocation of 2,825 kHz for the HF Broadcasting Service; 700 kHz in bands above 13,600 kHz and 2,125 kHz in bands below 13,600 kHz.

The following Table shows a comparison between the additional HF Broadcasting Service allocations proposed in the FCC Industry Advisory Committee report, the US proposals to WARC-92, and the allocations agreed to at WARC-92.

<u>IAC</u> <u>Recommendation</u> <u>kHz</u>	<u>US</u> <u>Proposal</u> <u>kHz</u>	<u>WARC-92</u> <u>Allocation</u> <u>kHz</u>
4,750- 4,995	-	-
5,060- 5,260	-	-
5,730- 5,950	5,900- 5,950	5,900- 5,950
7,250- 7,750	7,200- 7,525	7,300- 7,350
9,250- 9,500	9,350- 9,500	9,400- 9,500
9,900- 9,940	-	-
10,200-10,400	-	-
11,400-11,650	11,550-11,650	11,600-11,650
12,050-12,150	-	12,050-12.100
13,480-13,600	-	13,570-13,600
13,800-13,900	13,800-13,900	13,800-13,870
15,600-15,700	15,600-15,700	15,600-15,800
17,450-17,550	17,450-17,550	17,480-17,550
18,900-19,300	18,900-19,300	18,900-19,020
2,825 kHz	1,325 kHz	790 kHz

While WARC-92 conditionally allocated an additional 790 kHz for the HF Broadcasting Service, this was considerably less than was proposed by the US, and is far short of the 2,825 kHz of additional HF spectrum required as determined by the IAC report. It is an even greater shortfall from the

Comments
Paragraph 78

International Radio Conferences

A. The Dual FCC/ IRAC Policy Mechanism:

In planning for international radio conferences, the FCC, as a regulatory Agency, has the responsibility for representing the interests and views of its private sector licensees. Government agencies generally formulate their policies within the Interdepartment Radio Advisory Committee (IRAC). The FCC participates in the IRAC deliberations as the representative of the private sector.

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B. WARC-92 Preparation:

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generously of their time and experience.

C. Future International Radio Conference Preparation:

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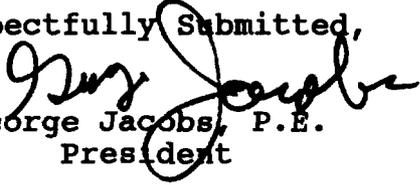
Summary: How Can Government be of Assistance?

In summation, my comments support government assistance in protecting and promoting the interests of private sector shortwave broadcasters in the following ways:

- To continue to recognize that US private sector shortwave broadcasting is a practical demonstration of the freedom of speech, the free flow of information and the free enterprise system in action; crucial parts of the infra-structure upon which any democratic society must be based, and that it is in the national interest for such broadcasting to continue and to be encouraged to grow.
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Respectfully Submitted,


George Jacobs, P.E.
President