Cancellation of Morse Code Test Requirement and
All Amateur Station Licence Classes,
430 to 440 MHz Bands Opened for Portable and Mobile Operations and
10.45 to 10.5 GHz Band Allocated for Amateur Service

HARTS
Circular Letter No. 1/2004

Circular Letter to All Hong Kong Amateur Station Licensees

Dear Sir/Madam,

Cancellation of Morse Code Test Requirement and
All Amateur Station Licence Classes,
430 to 440 MHz Bands Opened for Portable and Mobile Operations and
10.45 to 10.5 GHz Band Allocated for Amateur Service

This circular letter serves to announce the implementation of the following changes in amateur licensing matters which will come into effect soon:

I. Cancellation of all amateur station licence classes and Morse code test requirement

After the conclusion of the World Radio Conference 2003 (WRC 2003) Article 25 of the Radio Regulations (RR) has been amended. In order to implement the new RR25.5, consultations on the views of the Amateur Radio Societies have been completed and the majority’s view is to cancel the Morse code test requirement for accessing to the amateur frequency bands below 30 MHz.

All classes of Amateur Station Licence (ASL) and/or Authority to Operate (ATO) would be cancelled and replaced by an ASL and/or ATO without class upon renewal. The existing Intermediate and Restricted Class of ASL holders are allowed similar operational privileges as the existing Full Class of ASL holders.

Amateur Morse Test would continue to be conducted. There is no amendment in the existing call sign arrangements and all licensees will continue to use their existing allocated call signs.

II. 430 to 440 MHz bands opened for portable and mobile operations

ASL holders are permitted to use portable and mobile radiocommunication equipment in the frequency bands of 430.00 to 431.00 MHz, 435.00 to 436.00 MHz and 437.00 to 437.20 MHz. The permitted transmit power for portable and mobile operations in these bands shall not exceed 5 watts erp and 25 watts erp respectively.
III. 10.45 to 10.5 GHz band allocated for amateur service

ASL holders are permitted to use the frequency band of 10.45 to 10.50 GHz on a secondary basis. The permitted transmit power shall not exceed 5 watts ERP.

A revised Schedule 1 and Notes to Schedule 1 (Annex A) showing the above changes are on the way of sending to individual Amateur Station Licensees by end of February 2004.

For any queries on the above, please address to the following:

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Office of the Telecommunications Authority
36th Floor Wu Chung House
213 Queen's Road East
Wanchai
Hong Kong.

Tel : 2961 6608
Fax : 2803 5113
Email : support_services@ofta.gov.hk

Yours faithfully,

[Signed]

(T.Y. CHAN)
for Telecommunications Authority
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<td>電視及脈衝</td>
<td>20</td>
<td>26</td>
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<td>primary, amateur and amateur satellite service</td>
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<td>20</td>
<td>26</td>
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<td>76,000 - 77,500</td>
<td>次要, 業餘業務</td>
<td>secondary, amateur and amateur satellite service</td>
<td>secondary, amateur and amateur satellite service</td>
<td>Television &amp; Pulse - only for frequency above 5,725MHz</td>
<td>20</td>
<td>26</td>
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<td></td>
<td></td>
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<tr>
<td>77,500 - 78,000</td>
<td>次要, 業餘業務</td>
<td>secondary, amateur and amateur satellite service</td>
<td>secondary, amateur and amateur satellite service</td>
<td>Television &amp; Pulse - only for frequency above 5,725MHz</td>
<td>20</td>
<td>26</td>
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<td>78,000 - 81,000</td>
<td>次要, 業餘業務</td>
<td>secondary, amateur and amateur satellite service</td>
<td>secondary, amateur and amateur satellite service</td>
<td>Television &amp; Pulse - only for frequency above 5,725MHz</td>
<td>20</td>
<td>26</td>
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* 見備註 3(乙) see Note 3 (b)  # 見備註 3(丙) see Note 3 (c)
Frequency Allocation

(a) Primary:
A frequency band is allocated to the amateur and/or amateur satellite service on a primary basis on condition that no interference is caused to any other authorized service on a primary basis.

(b) Secondary:
A frequency band is allocated to the amateur and/or amateur satellite service on secondary basis on condition that:
(i) no interference is caused to stations of primary or permitted services to which frequencies are already assigned or to which frequencies may be assigned at a later time,
(ii) no protection can be claimed from interference from stations of primary or permitted services to which frequencies are already assigned or to which frequencies may be assigned at a later time, and
(c) Emergency Communications:
The bands allocated to the amateur service at 3.5, 7.0, 10.1, 14.0, 18.0, 21.0, 24.8 and 24.4 MHz may, in the event of natural disasters, be used by non-amateur stations to meet the needs of international emergency communications in the disaster area.

(2) Emission Characteristics

(2.1) Class of Emission

Under the Radio Regulations published by the International Telecommunications Union (ITU) classification of emissions are designated by groups of three characters. The types of emissions defined here are grouped according to the third character.

(a) Continuous Wave (CW): Amplitude-modulated transmission by on/off keying the main carrier intended for aural reception.

(b) Morse: Morse telegraphy intended for aural reception using any classes of emission ending in A.

(c) Telephony: Telephony using any classes of emission ending in B.

(d) Television: Television using any classes of emission ending in F. This may only be used in frequency bands above 1 GHz.

(e) Radio Teletypewriter (RTTY): Automatic telegraphy using any classes of emission ending in B. This includes teletypewriters using any CCITT recognized codes, and Morse telegraphy intended for automatic reception.

(f) Data: Data using any classes of emission ending in D. The Radio Regulations require that transmissions between amateur stations in different countries shall be in plain language. All transmissions shall therefore be restricted to using CCITT recognized codes (in plain language).

(2.2) Facsimile: Facsimile using any classes of emission ending in C.

(2.3) Slow Scan Television (SSTV): Television operating in a narrow bandwidth using any classes of emission ending in F.

(2.4) Telephone: The use of combinations of any of the preceding types of transmission, e.g. Telegraphy and Data, are described as classes of emission ending in W.

(2.5) Pulse: Pulse using any classes of emission ending in P. This may only be used in frequency bands above 1 GHz.

(3) Power

(a) Maximum power levels refer to the radio-frequency power supplied to the antenna. These levels will be specified by carrier power. For emissions having a suppressed, variable or reduced carrier the power shall be determined by the peak envelope power (p.e.m.) under linear conditions. For pulse emissions the mean power shall not exceed the carrier power and the peak power shall not exceed the p.e.m. stipulated for that frequency band.

(b) For mobile operation in the frequency band of 144 - 146 MHz and allocated bands in the 430 - 440 MHz a maximum of 14 dB erp is permitted. For portable operation the corresponding limit is 7 dB erp.

(c) For operation in the frequency band 5.725 - 5.850 GHz, a maximum of 6 dB equivalent isotropically radiated power (e.i.r.p.) is permitted.

(d) The bandwidth of emissions shall be so chosen as to ensure the most efficient utilisation of the spectrum: in general this requires that bandwidths be kept at the lowest values which technology and the nature of the service permit. Where bandwidth-expansion techniques are used the minimum spectral power density consistent with efficient spectrum utilisation shall be employed. However whatever class of emission is in use the bandwidth occupied by the intended emission shall be such that not more than 1% of the mean power of the transmission shall fall outside of the authorized bands. This 1% does not include the power contained in harmonic and spurious emissions.
無線電頻率的電波

(甲) 由於強烈的無線電頻率可能對人身造成危害，故下列各頻率之電波在使用時應避免對附近之電波發射器造成干擾。

<table>
<thead>
<tr>
<th>頻率 (MHz)</th>
<th>電場強度 (V/m)</th>
<th>電波密度</th>
<th>有效平面波電場強度</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>28</td>
<td>2</td>
<td>1.375V/m</td>
</tr>
<tr>
<td>10-400</td>
<td>28</td>
<td>2</td>
<td>1.375V/m</td>
</tr>
<tr>
<td>400-2,000</td>
<td>28</td>
<td>2</td>
<td>1.375V/m</td>
</tr>
<tr>
<td>2,000-300,000</td>
<td>28</td>
<td>2</td>
<td>1.375V/m</td>
</tr>
</tbody>
</table>

(乙) 當無線電頻率對人身造成干擾時，應立即停止發射，待無干擾後再重新發射。

Radio Hazard

(a) Since high intensities of radio-frequency radiation may be harmful, the following safety limits will apply in locations to which people will be exposed:

<table>
<thead>
<tr>
<th>Frequency range (MHz)</th>
<th>E-field strength (V/m)</th>
<th>Power density (W/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>28</td>
<td>1</td>
</tr>
<tr>
<td>10-400</td>
<td>28</td>
<td>2</td>
</tr>
<tr>
<td>400-2,000</td>
<td>28</td>
<td>2</td>
</tr>
<tr>
<td>2,000-300,000</td>
<td>28</td>
<td>2</td>
</tr>
</tbody>
</table>

For pulse emissions, the equivalent plane wave power density as averaged over the pulse width shall not exceed 1,000 times the specified limit given above for the frequency concerned, provided that the specified limit itself is not exceeded when averaged over a period of 6 minutes, and hazards of radio-frequency burns are eliminated.

(b) To avoid inadvertent ignition of inflammable atmosphere by radio-frequency, mobile radio stations below 30 MHz should not be used in the forecourts of any petroleum fueling stations.

電波呼號

(甲) 每次無線電發射前，必須先發電台呼號，電台呼號須在電台強度電場強度上加上“P”；發電電機須在電台強度電場強度上加上“M”；所有無線電設備在電台呼號

(乙) 電台呼號在傳播過程中不得被電台呼號所干擾，而當電台呼號與電台呼號有改變時，亦應發出電台呼號，若使用電台的時間超過十五分鐘，必須在接著的每十五

(丙) 使用無線電發電時，應避免對附近之無線電呼號，以確定電台呼號之正常。若無形成電台呼號，則應立即停止發射，以確保電台呼號之正常。

(丁) 電台呼號發電時，應避免對附近之無線電呼號，以確定電台呼號之正常。若無形成電台呼號，則應立即停止發射，以確保電台呼號之正常。

呼號

(甲) 擁有無線電發電者，必須在發電前發電台呼號，電台呼號須在電台強度電場強度上加上“P”；發電電機須在電台強度電場強度上加上“M”；所有無線電設備在電台呼號

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記錄

(甲) 擁有無線電發電者，必須在發電前發電台呼號，電台呼號須在電台強度電場強度上加上“P”；發電電機須在電台強度電場強度上加上“M”；所有無線電設備在電台呼號

(乙) 電台呼號在傳播過程中不得被電台呼號所干擾，而當電台呼號與電台呼號有改變時，亦應發出電台呼號，若使用電台的時間超過十五分鐘，必須在接著的每十五

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Record

(a) A permanent record shall be kept by the Licensee showing:

- The date of transmission;
- The hours in Coordinated Universal Time during which the first and last transmissions from the Station;
- Frequency band;
- Frequency band;
- Class of emission;
- Power;
- Call signs of licensed amateur stations with which communications have been established;
- Details of the tests carried out in accordance with General Condition No. 11(b).

(b) Except for operation in frequency bands below 30 MHz, there is no need to keep record for mobile and portable operations.

(c) Regardless of how the record is kept, entries in the record should be retrievable and available in hard copies for later inspection.

(d) Pursuant to General Condition No. 15, the Licensee shall keep the record for at least 6 months from the date of the last entry.

(7) 應予送審的資料

(甲) 擁有無線電發電者，必須在發電前發電台呼號，電台呼號須在發電時後立即通知電台管理局局長。

(乙) 應予送審的資料包括:

- 所發送之發電器材之數量，包括發送發電器材之數量，及
- 每件發電器材之型號、型號及型號編號，如發電器材為有線電發電器材，則應予通知之資料為無線電發電器材之型號、型號及型號編號。

Particulars to be Notified

(a) Pursuant to General Condition No. 2(d), the Licensee shall notify the Telecommunications Authority of any change in his station particulars within 72 hours of such change.

(b) Those particulars are:

- The quantity of the transmitting apparatus that he has in his possession, including the number of portable apparatus (if any); and
- The make, model and serial number of each of these apparatus. In case the Licensee has constructed his own apparatus, he should notify the classes of emission, frequency bands and maximum power with which the apparatus is capable of working.