

**Letterhead of Telecommunications operations of Hutchison Whampoa Limited**

CB(1)1567/00-01(01)

**URGENT**

15 June 2001

**BY FACSIMILE (FAX NO.2524 3802/2121 0420) AND BY HAND**

Legislative Council Secretariat  
3/F Citibank Tower  
Garden Road  
Central  
Hong Kong

Attn: Hon James Tien  
Chairman of Subcommittee

Dear Hon. James Tien

**Draft Telecommunications (Designation of Frequency Bands Subject to Payment of Spectrum Utilisation Fee) Order - Supplementary Information**

Further to the Administration's response to our views on the above draft Order (as set out in LC Paper No. CB(1) 1345/00-01(02) titled "Summary of views on Draft Telecommunications (Designation of Frequency Bands Subject to Payment of Spectrum Utilization Fee) Order" submitted to you for the meeting on 4 June 2001 by the Administration), we would like to submit further information for the Sub-committee's further consideration:

1. We set out in **Exhibit 1** the different Frequency Division Duplex (FDD) and Time Division Duplex (TDD) frequency bands proposed to be allocated for the 3G mobile services in Hong Kong. They together represent four sets of paired 14.8 MHz and unpaired 5 MHz frequency spectra.
2. We are of the view that the following objectives should be achieved by OFTA in the proposed allocation of 3G frequency spectrum:
  - (a) to minimise the interference to the frequency bands allocated to all 3G licensees so far as the spectrum band plan permits; and
  - (b) to ensure equal and fair treatment to all 3G licensees in the quality of frequency spectrum allocated.
3. As you may see from **Exhibit 3**, there is a guard band of 0.4 MHz between the 5 MHz TDD band A and the 14.8 MHz band A, which in our view (as stated in our submission to OFTA dated 9 April 2001 in connection with the Proposed Rules on "Connected Bidders") is insufficient to safeguard the spectrum purity due to the expected high interference of the TDD band on the FDD band.

4. It is therefore one of our proposals made in the same submission that the unpaired 5MHz TDD band 1914.9-1919.9 be moved to 2014.7 - 2019.7 (please see **Exhibit 2**). This 2014.7 - 2019.7 band is within the UMTS TDD frequency band prescribed by the 3GPP standard.
5. The Administration has rejected such proposal on the basis that the band 2014.7 - 2019.7 may be used in Hong Kong for unlicensed equipment and the re-allocation of 3G spectrum to this band would restrict the use of such equipment in Hong Kong.
6. We note that the band 2014.7 - 2019.7 has been reserved for unlicensed apparatus by the European Radiocommunications Committee (ERC). The same band however has been designated under the ITU standard for UMTS, and not for unlicensed apparatus. OFTA has not previously announced nor consulted the public and the industry on the adoption of such ERC standard. Therefore we have legitimately assumed that such band is available for 3G mobile service.
7. On balance we believe that the allocation of 4 sets of frequency spectrum of same quality, tantamount to ensuring equal and fair treatment of all 3G licensees, outweighs in importance and benefits this ambiguous provision for some unlicensed apparatus which may not be of wide use in the future.
8. We have also submitted to OFTA our comment that the frequency band 1964.9 - 1979.7, which is adjacent to the band for mobile satellite service (MSS), is affected by interference from the MSS band. In fact we have measurements evidencing the existence of such interference from MSS in the 1964.9 - 1979.7 band. (Please see **Exhibit 4**). Submission of the measurements collected shall be made to OFTA in due course.
9. In order to achieve the above objectives, we have also previously proposed to OFTA and would like to reiterate our position here that such frequency band should be cleared of and freed from all such interference before such band were to be allocated for 3G mobile service to any of the four 3G licensees.
10. As pointed out in our two proposals above, the TDD band A and the FDD band D are susceptible to higher chance of interference which differentiate the 4 sets of frequency spectrum proposed in quality.
11. This difference in the quality of 4 sets of frequency spectrum underpins and forms the basis for the cash auction to determine the respective priority rights in allocation of sets of frequency bands. Were the 4 sets of same quality, the idea of a cash auction would fall apart as there will be nothing to bid for.
12. We believe that the objectives stated above are important and should be fulfilled by OFTA in its proposed frequency spectrum allocation. We have no objection to cash auction to determine the priority rights if all efforts have been made by OFTA to minimise the interference by adopting feasible solutions like the proposals made above, and yet not all interference could be cleared. However if no attempts were made to free the frequency bands of such differentiation of quality, we fail to see the rationale behind the cash auction other than to further drive up the auction price and

thus maximising the benefits of the treasury, which the Government has repeatedly stated is not its intentions.

We hope the above further information is useful. If you require any further information or clarification, please do not hesitate the undersigned at 2128 6332.

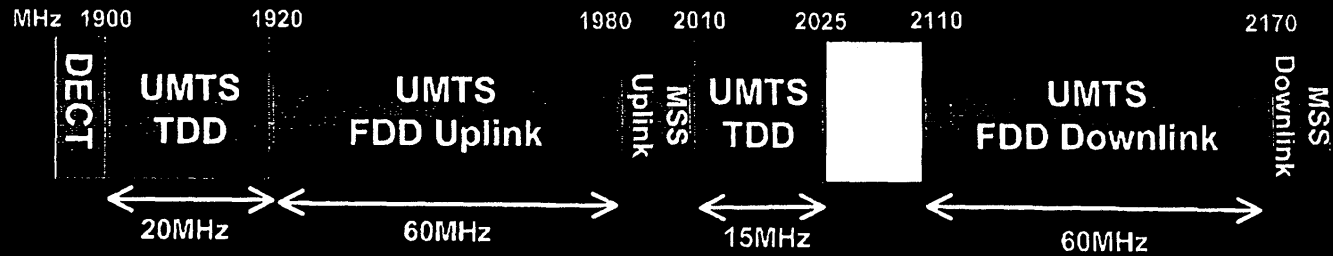
Yours sincerely

Cliff Woo  
Deputy Managing Director and Wireless Networks Director  
Hutchison Telephone Company Limited  
Encl.

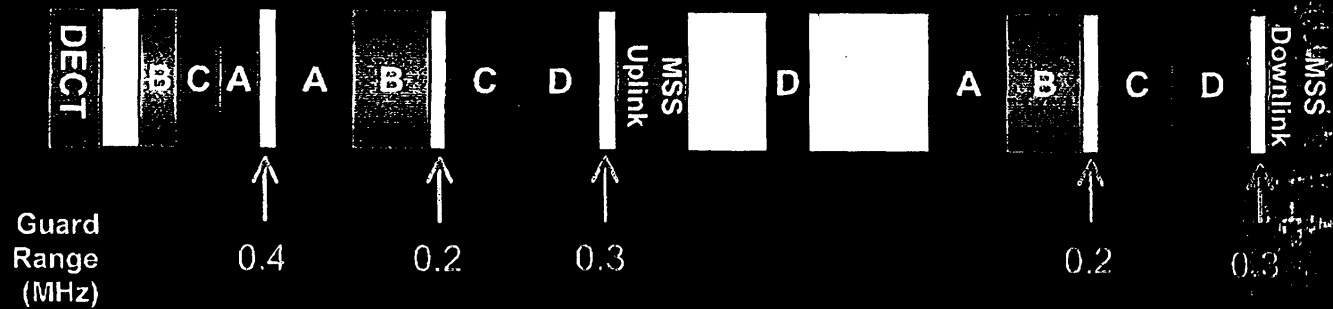
# 3G Spectrum Allocation

## HK OFTA Proposal

### ITU 3GPP Standard

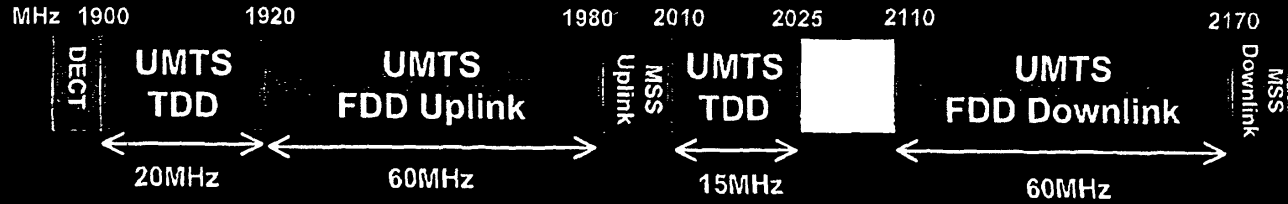


### HK OFTA Proposal



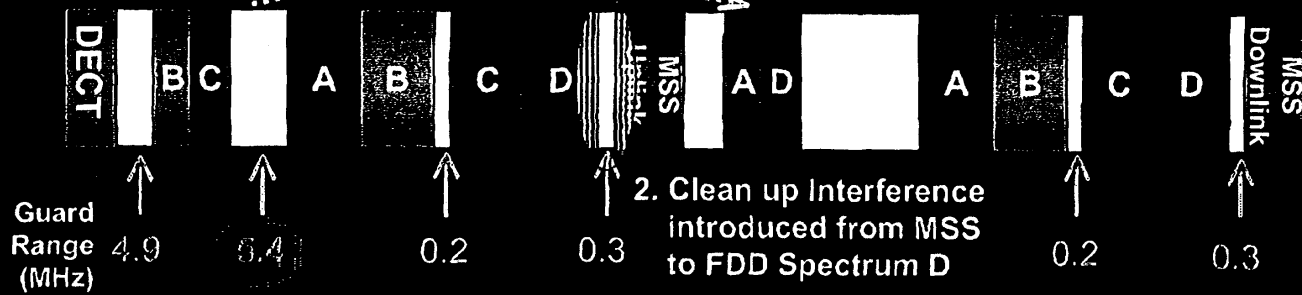
# 3G Spectrum Allocation Hutchison Proposal

## ITU 3GPP Standard



## Hutchison Proposal

1. Relocate TDD Spectrum A to minimize interference between TDD & FDD (within ITU assigned TDD spectrum range)

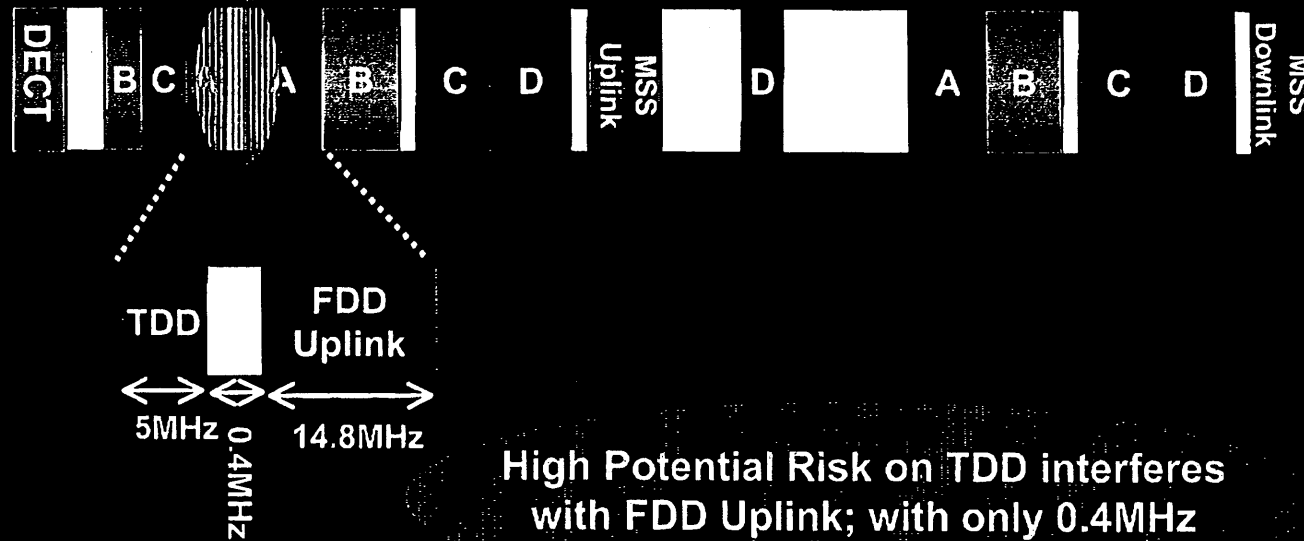


# 3G Spectrum Allocation

## Concern on HK OFTA 3G Spectrum Allocation

→ Spectrum "A" Assignment

HK OFTA Proposal



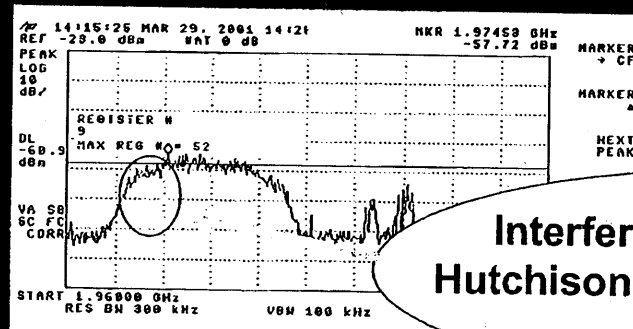
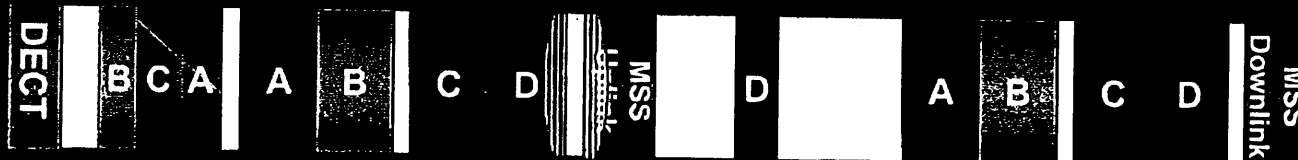
High Potential Risk on TDD interferes with FDD Uplink; with only 0.4MHz guard band

# 3G Spectrum Allocation

## Concern on HK OFTA 3G Spectrum Allocation

→ Mobile Satellite Service (MSS) interferes with Spectrum "D" FDD UL

### HK OFTA Proposal



Interference as measured by Hutchison at WanChai and Stanley area