A chapter entitled "Spread F characteristics"

0. Context – guidance for authors.

This chapter is intended to replace everything currently related to spread F in UAG-23 and UAG-23A.

Before reading this chapter we expect any reader to be familiar with at least chapters 0 to 3 of UAG-23A. Hence there is no need to repeat any of that information in this chapter.

The goal is to present a Final Proposed Draft text[1] to the 2026 GASS[2] meeting.

0.2   Contributors

As soon as you make a contribution I will add your name to the table below. Please don't be shy or humble as we want to credit everyone who contributes to this chapter so give me these details when you send your first contribution. I will add the country in which you are working to give a flavour of just how wide spread the contributions have been.

Name	Affiliation	Country
Dr Samuel Ritchie	Commission for Communications Regulation	Ireland

0.3   How this process will work

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[1] This is ITU terminology for a document that is ready for approval by a plenipotentiary meeting – which for URSI is GASS.

[2] Scheduled for 15 – 22 August in Krakow, Poland.

I am co-ordinating this work and the work only progresses as I receive contributions.

We will be updating a master document which will become the new chapter.

As at 2 October 2024 the master document is a replica of various parts of UAG-23 and UAG-23A were spread F is dealt with.

I will always make the latest master (identified by is date) available for download from my website[3] which will be updated as I receive contributions until we have a stable version. A stable version has the following characteristics:

- Contributions of new material has dried up; and
- Comments[4] on other people's work have stopped.

In that stable version I do not expect that we will agree on everything so there maybe be two or more different text options on a number of issues or on some examples. But, once we have a stable version we can have a ZOOM call to agree/compromise on matters or we hopefully will have the option to come to Dublin for a face-to-face meeting to finalise the document before we send it up for consideration.

0.4   Making contributions

There are many ways you can send me contributions – all are valid and appreciated. Here are five options I have come across so far in my career:

Send me pages – in this option you type up some text and send it to me telling me where it fits in. I then add this text to the master.

Work in the master document – in this option you download the master document and input all your text and graphics using revision marks. Then you send me your document and I use this, either as the new master (if I have no other additions) or to update the current master.

Send me an email – in this option you send me text in the body of an email, perhaps with a graphic attached, with instructions for where the text and/or graphic fits. Again I add it into the master.

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[3] www.samuelritchie.com/ionogram
[4] Always polite comments of course.

Send me an audio/video file – in this option you record yourself speaking the text you want me to add into the document and where you want it. This has helped contributors where their typing in English just frustrates them.

We draft by ZOOM – we make contact by ZOOM/TEAMS, I display the text on the screen and type as you talk me though your text.

Please do not worry about English language or grammar – I will sort it out.

0.5   Working in the master.

If you chose to work in a downloaded master document then beware that revision marks are always on in the master document and revision marks should not be turned off – I need to see what you have done by following the revision marks in order to update my master document.

I intend to keep revision marks showing in the master so we can all see what has been removed or added or moved around.

0.6   Graphics.

Please send me high definition graphics of any ionograms you insert which I will store – this is in case we go for a high quality printing, or if I am annotating graphics.

No doubt we will need to explain things by annotating graphics, i.e. mark up the ionogram. I would prefer to make all those annotations myself so that all the annotations in the chapter use the same colour, style, font, size, etc. As long as you have sent me the high definition graphic you could just hand write the annotations on a copy, scan it, email it to me and I will create a master.

Do not forget to add full references if you reference anything – just write them into the body of the text and I will sort them out when we approach the end.

0.7   Comments and commentary.

The best documents I have been involved in drafting in this manner[5] are those filled with commentary, comments on others inputs and counter comments on

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[5] The vast majority of outputs from the ITU, the CEPT and many of the EC committees (e.g. the RSPG) are done like this.

what other have said about your or others inputs. This has generated debate, thinking, analysis and in the end a good output.

Rather than engaging in a steam of email backwards and forwarding I add all comments received into the master document[6].

Once we have a stable document we stop taking inputs and work only work towards resolving the comments. This may need a face-to-face meeting or a ZOOM/TEAMS call – it will also require compromise and willingness to accept that the chapter will be good enough but perhaps never perfect.

ends …./

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[6] Beware that anonymous comments will be ignored and that I will identify the person making the comment in all cases.