

MONDAY 22 JUNE 2009

Present

Bradshaw, L. (Chairman)

Dykes, L.

James of Blackheath, L.

Powell of Bayswater, L.

Rowe-Beddoe, L.

Walpole, L.

Whitty, L.

Memorandum submitted by Department for Transport

Examination of Witness

Witness: **Ms Ann Sta**, Head, Galileo Programme Division, Department for Transport, examined.

Q1 Chairman: Welcome. What I would invite you to do is, if you wish, to make an opening statement and, secondly, I should say that next week we will be seeing the Commission, as it were, to hear their side of the story - if there are two sides!

Ms Sta: Thank you very much, my Lord Chairman. My name is Ann Sta. I am Head of Galileo Programme Division in Department for Transport. Lord Whitty will know me as Ann Godfrey. I should say, I am also Deputy Chair of the Galileo Supervisory Authority Administrative Board in the EU. You will be aware that Galileo has a very troubled past. It was originally intended to be a public-private partnership so that Europe was going to build an equivalent system to the Global Positioning System that the US have. It was going to build a civil system using private money, with some public money, but that failed. At the end of 2007 it was agreed between the Parliament and the Council that the system would be wholly financed for its development from EU funds. A new Regulation was negotiated at the beginning of 2008 which set up the Commission as the programme manager for getting the

system built with the European Space Agency as its delivery agent. That also then changed the role of the Galileo Supervisory Authority because their original role was to supervise the public-private partnership. They were originally meant to be a regulator but, of course, with everything now being funded by the public sector there was nothing to regulate. People tend now to call them the GSA forgetting that they were ever a supervisory authority, but everyone knows what they are. Under the Regulation that was negotiated last year, that is 683/2008, the role of the GSA was also changed so that rather than doing a great many things, including being a regulator, it became a body which would look after security accreditation, the development of downstream markets for the system and commercialisation of the system. This is an interesting European term which seems to mean different things to different nations. We think it means selling it really. The GSA also does things that the Commission require it to do, so it can be in those domains but also in other domains where the Commission have need of expertise, and there is a great deal of expertise within the GSA itself, mainly on security and marketing but there is other expertise as well. At the time this Regulation was being negotiated we and a number of other Member States said to the Commission that they really should revise 1321/2004, the Regulation that set up the GSA, at the same time, but they did not want to do that for a whole variety of reasons, mainly getting to grips with owning and building a satellite system was quite weighty enough for them. They brought forward this proposal at the beginning of 2009 and the intention is to align the two Regulations, so take out things from 1321, which has not been repealed, that do not go with last year's Regulation but also to add some more issues like the Security Accreditation Committee. I hope that is sufficient.

Chairman: I think we shall need to put some flesh on the bones, but thank you for explaining the bones.

Q2 Lord Powell of Bayswater: Can I just ask a quick factual question arising from that very lucid explanation. Is there a precedent for the Commission owning and operating a complex technological system?

Ms Sta: No.

Q3 Lord Powell of Bayswater: I thought the answer to that was no. Does not the very thought of it make your hair stand on end?

Ms Sta: It is an interesting experience.

Q4 Lord Powell of Bayswater: It should never really have been allowed to happen, should it?

Ms Sta: It was either that or stop the project and the Government's position was sufficient money had already been spent, too much to just throw it away.

Lord Powell of Bayswater: I just wanted to get the facts clear. Thank you very much.

Q5 Lord Dykes: This is a complex matter for laymen like us on this Committee, I am sure, but thank you for that helpful explanation and for coming today. Principally on the question of this fascinating exercise of the alignment of Regulation 1321 with the other Regulation, 683, can you just bring us up-to-date very briefly about what was discussed in that context at the 11 June Transport Council? Are there particular leading Member States that have sharply differing views about this project? What is the latest state of the European Parliament's views, preoccupied, of course, with the recent election, about this matter as well?

Ms Sta: At the Transport Council there was no discussion. The Presidency, who have been very helpful in taking this forward, just gave a report which was very good, we thought, very accurate. All Member States agree that the Regulation needs to be revised, but all Member States are not convinced that we have got the right answer to that revision yet. There is

unanimity amongst Member States on not allowing the Commission to be able to control the Administrative Board, though some Member States feel that the Commission could perhaps have a little more power rather than being one amongst 28. There is also unanimity on our concerns about the Security Accreditation Committee. There, I think, the unanimity also extends to the Commission because we know that we have to get this right and we all agree that we are not quite there yet.

Q6 Lord Dykes: Further to that, and forgive me if I sound too much of a layman in trying to get this clear in one's mind, if this is the first time this is happening, does the Commission regard this as the creation of its first ever Executive Agency function? Would they not perhaps consider assigning it to the European Space Agency as a particular project manager? What is the new definition of a Community Agency because these are rather confusing overlaps for outsiders?

Ms Sta: I forgot to answer your question about the European Parliament. They have not considered it yet. It is not in a state that is ready for them to consider. Because the Commission have never done anything like this before there is no precedent for them to have any type of body to give this to. The European Space Agency is essentially a research organisation, it started it off, and, although it builds and launches satellites, its focus is on science, not on delivering a service. Also, there are only 17 members of the European Space Agency, not all Member States are members, and Norway and Switzerland are members. There is quite a big issue around that which we are trying to sort out legally. There is general agreement amongst Member States that it would not be right for ESA to build and run this, although they do have the expertise to procure it on behalf of the Commission. There are a number of agencies which act, if you like, as regulators, like the European Aviation Safety Agency, which is the one that I know best, and they operate independently of the Commission with Member State input. There are also agencies that are set up merely to do what the

Commission wants them to do but they are not very arm's length. Although the Commission are saying their proposals do not turn the GSA into one of those agencies that are just an annex of the Commission, in effect we think they do.

Q7 Lord Dykes: Does that mean the British Government is worried about the independence of the GSA?

Ms Sta: Yes. There are arguments that we have gone through ourselves to arrive at our policy to say that if all the GSA does is what the Commission wants it to do then what is the point in having something that is separate, but in our view it is better to have the knowledge of marketing a system away from the building of it and also the Commission is already trying to do something that is completely foreign to it - it is really an organisation concerned with law - in building a satellite system. To have it become a marketing organisation as well is going a bit too far really.

Q8 Chairman: Do I take it that the European Space Agency is going to be contracted to actually procure and build the thing?

Ms Sta: They are contracted to procure it but it will be built by industry.

Q9 Chairman: Oversee the building of it?

Ms Sta: Yes.

Q10 Lord Powell of Bayswater: Who will contract the launcher?

Ms Sta: All the contracts will be let by the Commission but through the European Space Agency.

Q11 Lord Powell of Bayswater: Will the launcher be restricted to a European producer? In theory it could be the Chinese, who are normally the cheapest way of launching things.

Ms Sta: True, but the security concerns mean that the prime contractor - there are six contracts, six work packages they are called - must be European.

Q12 Lord Dykes: To clarify one last point. When you were talking previously about the Government's anxieties and how the programme should shape up, are you worried about that in the existing phase up to the end of 2010 or the subsequent phase?

Ms Sta: The Regulation that was negotiated last year set out all the work packages and the timeframe. The timeframe there is until 2010 it is the in-orbit validation phase and then from 2010-13 there is what is called the FOC phase.

Q13 Chairman: What is the FOC phase?

Ms Sta: Full Operational Capability. Then it should all be up and running.

Q14 Lord Powell of Bayswater: Just so I understand it, is the restriction on the European Union for procurement WTO compatible?

Ms Sta: It is, yes, because of the security aspects.

Q15 Lord Powell of Bayswater: That is the only reason?

Ms Sta: Yes.

Q16 Lord James of Blackheath: What will be the role of the GNSS Agency in the new Regulation and how will this differ from its current role?

Ms Sta: The proposals in the current Regulation have it being responsible for security accreditation, commercialisation and market development. The Regulation that was agreed last year does exactly the same. The functions that it had in the Regulation that this one is amending have already been curtailed. Before that the GSA was to regulate the public-private partnership, so the industry that was building and running the system.

Q17 Lord James of Blackheath: Could you give us an example of a situation in which the Regulation might be brought to apply, and what would it be seeking to do particularly?

Ms Sta: The Regulation is seeking to agree the governance of certain aspects of the system, so the security accreditation. It will allow the setting up of a committee to look at all aspects of security and sign them off to say that any risks left over are acceptable.

Q18 Lord James of Blackheath: In security, would you include the intercession to police or to require attention being given particularly to major traffic black spots, accident spots?

Ms Sta: This is about the system itself rather than applications for the system.

Q19 Lord James of Blackheath: I cannot see the difference actually.

Ms Sta: The Security Accreditation Committee will make sure that the satellites work properly, that when they launch it is secure, that the signals can be secure and the sites are secure on which the ground stations are. It is purely about the technical building of the system.

Q20 Lord James of Blackheath: I suppose I am looking at it from the perspective of somebody who has a particular grouse about two aspects of the GPS system. The first is the failure to identify black spots and the second is the ability of foreign trucks coming through to try and use it to take shortcuts to otherwise unmanageable locations to the detriment of local communities.

Ms Sta: As far as I understand the nature of sat nav systems, that has got more to do with the mapping and the way the provider of the sat nav service does it, which is not GPS, it is TomTom or whoever, rather than the signal itself.

Q21 Lord James of Blackheath: It seems to me that there is an opportunity here to get ahead of the game if only these issues were expanded into this system.

Ms Sta: We are hoping that will happen. One of the reasons for pushing ahead with this is that two constellations, so GPS plus another constellation, will give you much greater accuracy than you have got at the moment. Therefore, people who develop applications will be able to have them much more refined.

Q22 Chairman: That is because you get two bearings on whatever it is?

Ms Sta: Yes, rather than having 28 satellites you would have 28 plus 30.

Q23 Lord James of Blackheath: If the answer to my question as I put it is “no”, then what would be the principal objectives of the new agency’s applications and regulation?

Ms Sta: The new agency would be looking at making sure that applications could be developed, new and innovative applications, and looking at what markets there might be. For example, one of the things that the GSA is involved in every year is something called the Galileo Masters Competition where they offer a prize for the most innovative use of either GPS or the other augmentation system, EGNOS. Last year that was won by a tiny British company who have developed a mechanism for finding mariners who fall overboard. That is the sort of thing that the GSA does and we will do.

Q24 Lord James of Blackheath: As far as I am aware, no sat nav system in existence so far has done anything to signal the imminent passing of a school crossing by a vehicle, which has always seemed to me to be one of the more glaring omissions of sat nav.

Ms Sta: As a non-driver I am not very familiar with sat nav and how sat nav works. It is a particular application for satellites. I am aware that mapping and other data actually depends as much on the quality of the maps as it does on the quality of the satellite signal.

Q25 Lord James of Blackheath: The school crossings are all designated by local councils so they could feed into the system and it would not be a problem.

Ms Sta: Then it would be for the people like TomTom to get that data, and Google Map, I guess.

Q26 Lord James of Blackheath: But they do not.

Ms Sta: No.

Q27 Lord Dykes: In the meantime, in this context are you expecting the system to start by the end of 2013 and, although it is early days yet on any examination of future costs, do you feel that this system will be cheaper than the American system?

Ms Sta: We certainly expect there to be an operating system by 2013. We are trying very hard to concentrate minds that this should happen. Cheaper than the American system? It is very difficult to say because it is not altogether clear how much the Americans have spent on their system.

Q28 Lord Dykes: Because it was a military secret?

Ms Sta: Well, it is a military system and they had lots of tries before they got it finally operational.

Q29 Lord Powell of Bayswater: But they do not charge for it, do they?

Ms Sta: No.

Q30 Lord Powell of Bayswater: And the European one?

Ms Sta: The open signal will be free.

Q31 Lord Whitty: I think you have probably clarified a number of things behind my question but I have still got a nagging feeling. In terms of the GSA's role in commercialising, ie finding the applications for it, how do you see them actually doing it given their history and

where they are coming from? They do not seem to be the obvious people to market a new technology. What other kinds of applications, apart from the ones Lord James was talking about, are we looking at at this stage? How do you think we can maximise the use of the system? Further to your last answer, there will be areas in which it is clearly going to be provided for free, but will there not be other areas where, as I understand it, a charge would be made from where, in effect, the European Union could get some of its money back?

Ms Sta: To start from your first question on how will the GSA go about finding markets. GSA have a number of staff who are marketing professionals, market development people, and they have done a great deal already in looking at applications. As I say, the competition I was talking to you about is just one of the things that they do. Just to give the UK Government a plug, we have just completed a study on downstream applications for Galileo which went on our website last week and we concentrated mainly on transport applications, not aviation. There are applications for rail. Indeed, I understand already that at some stations trains cannot operate without GPS because it tells them when to open the doors. There are maritime applications, aviation for landing, and some of the more interesting applications outside of transport. We are starting to see development around health where GPS and Galileo can be used to track people who might wander off, so for Alzheimer's sufferers, and applications to assist blind people in finding their way around places. At this competition that the UK won last year, one of the entries there was from Australia where they have developed a system where, because people are so remote from hospitals, people who have suffered from very severe heart complaints, who have had operations, can exercise in the way that they need to and be monitored remotely, so can be monitored from a hospital 400 miles away, and if anything went wrong the emergency Flying Doctor could go out to them straight away. It was a way round the difficulty in making sure that people who have such

conditions exercise properly and can do so in the confidence of knowing that they will be helped if anything goes wrong. These are really at the cutting edge of this sort of technology.

Q32 Lord Powell of Bayswater: Are these only applications which could be done through Galileo or are they perfectly feasible through the American system too?

Ms Sta: They are feasible with GPS but they are better with Galileo because you get better accuracy. You need the two together; one on its own will not do.

Q33 Lord Whitty: Although those applications do present a wider field than I was thinking, and they are probably largely confined to transport and military use, I do not think any of them is likely to raise any money.

Ms Sta: No.

Q34 Lord Whitty: Whereas the GPS has had millions of dollars thrown at it by the American military. Is there any scope in that sense for commercial applications?

Ms Sta: Yes, there is. The system is designed to have five signals. One is called a Commercial Service where at the moment we are helping the Commission work out what the Commercial Service might do. The system provides timing and positioning, so there are a number of applications where you can imagine people would pay for absolutely accurate timing - banks, for example, electricity generation, those sorts of things - where the system will provide guaranteed integrity and people would be willing to pay for that and even, to a certain extent, some of the mapping data put together in a service if you could provide real integrity so that you guaranteed it. There are some very high value applications - precision mining, precision agriculture, those sorts of things - where people would be prepared to pay money.

Q35 Lord Powell of Bayswater: Is it assumed that all European militaries will switch to it?

Ms Sta: No. Some European militaries have said they want to use it, mainly non-NATO ones. The Austrians are very keen to use it. It is not assumed. Indeed, the Italians, for example, have said that they will not, as indeed have we.

Q36 Lord Whitty: Is that because all the NATO powers are already using the GPS or is there a restriction on them using something else---

Ms Sta: No, they have already got GPS.

Q37 Lord Whitty: --- because of NATO compatibility.

Ms Sta: Yes. I think they are quite happy with that. There again, any suggestion that they might have to pay for it might worry them.

Q38 Lord Powell of Bayswater: Coming back to the issues of governance and particularly the role of the Member States, in the Explanatory Memorandum you say that Member States have a reasonable degree of control through the Admin Board and representation in technical committees, although everyone is their own judge of what is reasonable. Has the provision for Member State control actually diminished considerably in the latest proposals?

Ms Sta: In this, yes. The Commission would have as many votes as all of us put together.

Q39 Lord Powell of Bayswater: That must be rather worrying, must it not, given the history of this project?

Ms Sta: It is incredibly worrying.

Q40 Lord Powell of Bayswater: How firm are people going to stand in getting it changed, do you think?

Ms Sta: All Member States want it changed, but whether Member States like us have to compromise on maybe giving the Commission two votes out of 28 or something, because at

the moment they are one of 28 and they believe they should be more. We think if they cannot get what they want by persuading us it is a good thing then we certainly do not want to be railroaded into doing something we do not want to do.

Q41 Lord Powell of Bayswater: You think that is really going to be a red line?

Ms Sta: Yes, but not just for us. We are shoulder-to-shoulder with them.

Q42 Lord Walpole: Can you tell me what you feel the European Parliament will do and how it ought to be involved? Do you want to see it on the agency or as an observer or something completely separate? The other thing I was going to ask you was when you said it is a new Parliament, yes we know it is a new Parliament, but has it actually settled down yet or is it still whizzing around wondering what on earth it ought to be doing, generally?

Ms Sta: To answer your last question first, I understand that political groupings will be sorted out this week and next and then various committees will be settled over the coming six weeks, but essentially it will not work until September/October. On the European Parliament's role, last year, as part of the negotiation on the other Regulation, the European Parliament wanted quite a large role there and it was agreed that we would set up something called the Inter-institutional Monitoring Panel made up of the Council, the Commission and the Parliament.

Q43 Lord Walpole: What sort of size?

Ms Sta: From the Council's side there are three Member States, the Commission is just the Commission and the Parliament, I think, is two or three. Parliament was very keen to get this, but since it was set up it has met twice. It has proved difficult to find times for it to meet. Clearly, it is not high on people's agendas. Having got that, it is difficult to understand what the Parliament would get out of being an observer. Indeed, it does seem rather odd that you

would have a budgetary authority taking part in meetings which decided what would go to it afterwards. We really feel that the European Parliament has played a very good role with Galileo because they were the ones who kept saying to the Commission, “This is going right surely” and they are better suited to take a broad overview rather than wallowing around in the detail about how many computers have got to be requisitioned, which is one of the things that the Admin Board do.

Q44 Lord Rowe-Beedoe: Listening to your answer, is there a great deal of precedent to have European parliamentary members sitting on this type of body?

Ms Sta: I do not know of another one. I have never, ever heard of it.

Q45 Lord Rowe-Beedoe: It smacks to me of being totally in conflict with every sort of governance principle that I have ever come across.

Ms Sta: Indeed, yes. That is another thing that all Member States are unanimous about. None of us would want to see an observer, we think it is the wrong thing for the Parliament. Parliament has a very good role to play, but it is not this one.

Q46 Chairman: Can you say a word or two about the Security Accreditation Committee. Who is it and what is it going to do?

Ms Sta: As I was explaining earlier, any big system of any sort needs to be accredited to make sure it works, but this is to accredit it to make sure it is secure. There has to be some formal sign-off. Somebody has to sign to say the risks are acceptable. That is the role of the Accreditation Committee. Coming from a purely practical point of view, UK Government needs to decide how much resource to put into this and what sort of resource. We have asked what would be the volume of work, what would be the level of decisions to be taken, and how many times a year would it meet. At the moment nobody knows the answers. I was talking

to my colleague from the Commission earlier on and he agrees that they do not know the answers either. That is one of the reasons why the UK said, “Could we all just slow down and think about this a bit more”, because until we know exactly what it is we want this committee to do, and the level at which we want them to do it, then we should not continue because one could foresee a situation where with a system of this nature a great many quite small things have to be accredited because there are certain dependencies. I am not an engineer but I gather this when you hear people who are experts talking about what depends on what. We would not want to be sending the head of any government accreditation body from here to sit through months and months of little decisions, so we need to work out what decisions need to be taken by this committee and what decisions can be taken more properly by something that already exists, called the Security Accreditation Panel, on which the Department for Transport has a representative and CESG has a representative, and they go along and accredit things in the early effects. That whole range of what it is going to do and who is going to do it just needs to be sorted out before we can agree on the Regulation.

Q47 Chairman: CESG?

Ms Sta: I knew you would ask me that! It does not stand for anything apparently. They are part of the Cabinet Office that do security accreditation over all aspects of UK Government.

Q48 Lord Powell of Bayswater: How wide is the definition of “security” in this context? I am getting a bit puzzled. Is it to do with signal security or is it to do with the risks to the whole operation? How wide does this range?

Ms Sta: To start off, it is the security and integrity of the signals, to make sure that the clocks work, that they are secure. It is physical security as well as data security. It is to make sure that it cannot be bombed but it cannot be cyber-attacked either, if you see what I mean. It is those sorts of issues.

Q49 Lord Powell of Bayswater: It does not extend, for instance, to personnel security?

Ms Sta: It does, yes.

Q50 Lord Powell of Bayswater: It does to that too?

Ms Sta: Yes, absolutely.

Q51 Lord Powell of Bayswater: It is pretty wide.

Ms Sta: Those sorts of issues are very common in the space field and all this is doing really is building on things that happen through the European Space Agency now and also things that happen in these sorts of programmes. It is just trying to put it into the law which is the difficulty.

Q52 Lord Walpole: What will be the considerations behind the decision as to where the GSA should be seated? When will this decision be made? The other thing I want to ask you is personally I thought when I first came across Galileo, however many years ago it was, that it was all terribly exciting, absolutely superb. Is it still exciting or is it rather depressing? I hope it is exciting because some of the things that you have suggested they are going to be able to do I think are incredibly good.

Ms Sta: The seating of the GSA will probably be a political decision taken in the context of all sorts of deals on the siting of things for new Member States. Eleven Member States have bid for the seat of the GSA - I will have to look them up - Cardiff, Strasbourg, Noordwijk in Holland, Prague, Ljubljana, and six more. I can tell you them all.

Q53 Lord Walpole: Which is the most central one in the land bloc, so to speak, irrespective of money or population?

Ms Sta: My guess is that it might well be Prague. If it is leaving Brussels it would be very surprising if the seat of the GSA went anywhere in an old Member State. I would think it would go to one of the new ones.

Q54 Chairman: Are you still excited?

Ms Sta: When the decision will be taken we do not know. Are we still excited? Yes. It goes up and down. I hope you ask that question of my colleague from the Commission next week.

Q55 Lord Walpole: I will indeed. I feel better after today, so you have obviously instilled something in us that it is exciting still.

Ms Sta: It is fun.

Q56 Chairman: You are still confident of 2013?

Ms Sta: An operational system by 2013. I think we have to.

Q57 Lord Dykes: Particularly an example of coming from what Lord Walpole was saying, would university scientific divisions expect to receive contracts and work from this project?

Ms Sta: A great many of them already have. University College London certainly has. I believe Nottingham has. Surrey has set up its little company which is likely to win part of the contract to actually build the satellites. JVA is the first satellite and it is the first one two times two budget and it is ours. Yes, I expect they would. In the UK anyway there is a great deal of interest at university level. We have quite close contacts at official level with universities.

Q58 Lord Rowe-Beddoe: This may have been covered, and if it has I apologise. What degree of compatibility, if any, is there between Galileo and the American system?

Ms Sta: They will operate together. There is an agreement between us and the US that that will happen.

Q59 Lord Rowe-Beddoe: So they are almost interchangeable?

Ms Sta: They are designed to make a bigger whole. They are designed to be not two systems but bigger than two systems, that is the way it should operate.

Q60 Lord Powell of Bayswater: Just coming to the finances of it, I have a recollection that when your colleagues came and talked to us about it at the time it was taken on to the Community budget we were assured that the then projections for completing the project were written in blood and on no account would be exceeded. Is that still the expectation or are there already signs of creep?

Ms Sta: They are certainly written in blood.

Q61 Lord Powell of Bayswater: The Treasury's blood.

Ms Sta: No, ours I think. There are always signs of creep. Sometimes it is what the Commission do or industry does to scare us into not turning back. There is always creep.

Q62 Lord Whitty: I have always been quite excited by this project, European technology and so on, but, to go back to the question before last, if to enhance the totality of functionality you needed two systems, how come the Americans did not do it? Originally Galileo was really a geopolitical catch-up for Europe and now to have maximum benefit it has to work inter-operably with GPS, which is also to the benefit of GPS. Why was there not a commercial development from America that fulfilled the same role?

Ms Sta: This is a personal view. I think it would always be military for the Americans. Keeping their system up is quite costly enough because they are having to refresh at the moment. For them, to build another would detract from the refresh of the old.

Q63 Lord Whitty: We will be saving the Americans some money on this, will we?

Ms Sta: No.

Q64 Lord Whitty: I am not against that.

Ms Sta: This is a civil system and theirs is a military system and there is that too. As well as delivering a better service there is also quite a lot of boost for the European economy out of this.

Lord Whitty: Yes, just the way you want it.

Q65 Chairman: Thank you very much. I think you will have detected, shall we say, some questioning here in our minds about what is going on. We will be seeing your colleagues from the Commission next week. I think you have probably improved our knowledge but there are obviously areas where you cannot improve our knowledge because you do not know.

Ms Sta: Yes.

Q66 Chairman: Is there anything else you want to say?

Ms Sta: No, I do not think so.

Chairman: Thank you very much for coming.