**CONFIDENTIAL**

Date Transcribed: 21st May 2021

Interviewer(s):

Respondent(s):

**INT: Let me see if I can do that. Yes, there we go. Okay so the first question I have, so I have got a series of questions, but it’s supposed to just be a bit of a chat, really. So the first question is, how long have you been doing any kind of recording, and how did you start?**

P18: How long have I been doing recording? Probably about 40 years, I suppose.

**INT: Okay.**

P18: And how did I start? Well, I think, in terms of doing recording, rather than looking at things, it probably as a result of volunteer work and polytechnic university courses, where recording and monitoring was a part of the course, but not by any means a core part of the course, but it was something that seemed to appeal to me, so I took it further in various avenues.

**INT: Mhmm. So you had an interest in natural history before you started recording, presumably?**

P18: I suppose I had an interest in protecting the environment, wildlife conservation, nature conservation, practical conservation, those sort of issues. So yes, and obviously surveying, researching and also long-term monitoring is obviously part of that, in terms of showing, if you like, indicators of change, whether things are improving or not, and whether any practical action to improve the environment is actually having an effect, and also, obviously taking into the account the natural fluctuations from year to year.

**INT: Is that part of your professional life as well? Or-**

P18: It’s become part of my professional life. Again, I’m not, I haven’t been employed professionally by anyone as an ecologist, other than perhaps there’s a few very short part-time roles, but I have been, but of course I am an ecologist, so to speak. I have been drawn into doing ecological work, you know, for example, commenting on planning applications and obviously in the mainstream work in a park service, in terms of managing habitats in parks and also in several volunteer roles.

**INT: Okay. So that park management, is that your professional career, then?**

P18: Mainly, yes, yes, yes. I’ve also had, I mean I’ve been in cemeteries and I’ve been in libraries and I’ve done a bit of environmental management as well, in terms of auditing, environmental management systems but yes, I suppose parks is my sort of natural home.

**INT: Okay, yes, and what species groups do you record and has that changed over time?**

P18: Currently, my main ones are butterflies because I’m a butterfly recorder for [nature society]. I also record [species], common [species], once a year, because we’ve got a volunteer project which overlaps with work, to monitor the effect of the pond restoration programme on common [species] population. So that’s been running for 38 years.

**INT: Oh wow.**

P18: So it’s one of the longer running amphibian monitoring programmes and hedgerows, hedgerows surveying monitoring. Hedgerows don’t move much, they don’t fly or anything like that, so they only need doing once every 10 years, we’ve found.

**INT: Okay, yes.**

P18: And hay meadow flora, that’s annual. So they’re the main ones. Incidental ones are including particular species, for example for a short number of years now over a number of sites, narrow-leaved bitter-cress, and further back, I was involved in monitoring [species] in [archipelago] and some other projects, but yes, it’s mainly fairly common species now, sort of like butterflies, [species], hay meadow plants, but I do do, occasionally, I do do others as well, and incidentally, I do try to keep records, if I can, that might be of value to others, and then pass those on if I’m confident in the species identification, and also some work on invasive species. We’ve got a site which is managed organically, which means we can’t use chemicals to control Japanese knotweed

**INT: Okay.**

P18: So we’re trying to manage it culturally. So we’ve been monitoring whether or not the methods are working.

**INT: What does that involve then, just chopping it back regularly?**

P18: Yes, cutting, crushing, covering with mats, and encouraging competition from neighbouring plants.

**INT: Okay, and is it successful?**

P18: Not too bad. It does take time, but I think we started with about 22 clumps spread out over quite a large area, and we’ve lost seven clumps, we can no longer really find them. So after we’ve done work on them, so presumably we have managed to control those.

**INT: Yes, and so what sort of geographical area does your recording cover? Is it mainly [CITY] focused or just one part of [CITY], or beyond that?**

P18: A large proportion of my current work is just one large park, but the [nature society] work covers the whole of the [City] area. So that’s the 32 [CITY] boroughs and the [COUNTY]. The [nature society] recording area, that’s larger, it’s a strange 20 mile radius from [Cathedral], which takes it into bits of [COUNTY] and [COUNTY], [COUNTY], [COUNTY] and [COUNTY], but it gets very complicated, and I just prefer to leave all the bits which are between the boundary of [City] and then outwards into the county areas to the respective [wildlife charity] branches, and I just focus on [CITY].

**INT: Okay. So there’s no overlap with those other branches within-**

P18: There is overlap, yes, because each branches all the way into the centre of [CITY]-

**INT: There is overlap, into- right.**

P18: Yes, yes, you’ve got it. So yes, there’s all that overlap inside [CITY] as well, but at least you sort of see the [City] as an entity that most people will sort of recognise to some extent.

**INT: Yes.**

P18: Whereas taking a 20 mile radius from the dome of [Cathedral], it’s a bit more of a difficult concept when it comes down to finding the boundary.

**INT: Yes, yes, and so do you do verification of records? Do people submit records to you and you check them?**

P18: Yes, it’s not a linear process. It’s more a spider’s web, because the records are coming from multiple directions and they’re going off into multiple recording systems.

**INT: Yes.**

P18: Because there’s the local site base recording systems, then there’s the [CITY ENVIRONMENTAL RECORDS CENTRE], then there’s the [wildlife charity], branches also sharing that information with the county Biological Record Centre. So you’ve got [COUNTY], [COUNTY], [COUNTY], or [COUNTY] [COUNTY], and [COUNTY], oh and a bit of [COUNTY] and yes, so it is very complicated. We’ve been doing a large survey over the last few years, five years now, and [unclear 00:08:57] I can navigate the system to some extent now, but I would have trouble describing how it all works.

**INT: Yes [laughs]. Yes, try and draw that diagram [laughs]. So when you’re doing your butterfly recording for example, how are you choosing where to go, to go and do some recording, or maybe it doesn’t work like that, maybe you’re just out and about and you record what you happen to see?**

P18: Before we started the main survey, we were just really taking records in as they came-

**INT: Okay.**

P18: Then we started a main survey with the aim of covering the whole of the geographic area of [CITY], two by two kilometre resolution, or better if we could, but we didn’t think we’d be able to achieve that. And so for that, we relied on the records, which were coming in from people, appeals for records from residential areas and recorders, tapping into all the other butterfly recording schemes that were going on.

**[00:10:05]**

The records for monitoring, the transit monitoring schemes, which is a story in itself, because of the way that data is handled, maybe we’ll come back to that in a while, and then gap recording. So we, in terms of the small central team, we were looking at areas which had relatively little coverage. So we were well aware of the best wildlife sites of butterflies in [CITY], or which appeared to be the case, and we’d get thousands of records from those, but it’s all those areas in between where we didn’t get the records, and so basically, we drew a map of London, and we plotted these, not the records themselves, but the sources, and area covered by the records as they came in, and then we would identify the gaps in the coverage, and then we would go to the centre of that gap and start recording there, and then that reduced the size of that gap somewhat, and then we’d go to the next biggest gap, and so on. So it’s not quite as easy as I described it, but-

**INT: Yes, that was the principle-**

P18: Basically, trying to reduce the size of the gaps.

**INT: And you were doing some of that yourself then were you, as well as trying to persuade other people?-**

P18: A lot of it myself, yes, yes, and I mean, obviously, to give you some idea, we’re not going to the best wildlife sites, we’re going to suburban housing estates, industrial warehousing, edges of airports, town centres, shopping centres, those sort of areas that don’t get surveyed that often.

**INT: Yes, and then did you find particular areas that you just couldn’t get or you didn’t want to go into?**

P18: Yes, I’m afraid there were a lot of those. Well, I mean you’re looking- the travel’s one issue, because car travel in London isn’t always that easy, so public transport is usually more convenient and you don’t have to keep parking and you can get off where you like. So the public transport was great, but on the other hand you know, it might take four or five journeys, train changes to get from one area of London to another. So that was a physical constraint.

Secondly, yes, there were some areas you’d rather not spend your free time looking, you can imagine sort of semi-derelict industrial areas with lorries driving past, stirring up the dust and you know, that sort of area, really a bit down and that. So yes, that was the sort of areas you wouldn’t want to, but they were gaps on the map.

**INT: So did you go to those sort of places?**

P18: Sorry?

**INT: Did you go to those sort of places or did you-**

P18: Oh yes, yes, yes. Yes.

**INT: You were never put off by- I mean I guess the only thing is whether you can access particular sites, isn’t it, but-**

P18: Yes, you got some funny looks sometimes, from the few people who were there, you know, wondering what you were wandering around for, you know.

**INT: And did you have much success in trying to recruit other people to fill those gaps as well?**

P18: It wasn’t so easy, no. We did get people to fill the gaps, but they would generally tend to fill the gaps they were interested in filling, which again, they would tend to be towards the more greener sites, if you put it that way.

**INT: Yes, yes.**

P18: But you know, we did encourage, we did ask people to send their records in, particularly, and we would list the sort of places where we were looking for records you know, like the Speckled Wood that flew past while you were parking your car in a multi storey car park or places like that. And it worked to a certain extent. We did get quite a few records from places we wouldn’t have got to otherwise, and obviously, some areas obviously have security on them for one reason or another, so it might only be employees or people who had to go there for a particular reason [unclear 00:13:33], so again, that was useful. Within [airport], for example, one example, we could do outside of the boundary, but not actually inside, so we had an employee who worked within [airport], who could survey those sort of areas.

**INT: Yes, so did you put those requests out on a website, that people could respond to, then?**

P18: Yes, on the [nature society] website and in the hard copy newsletter.

**INT: Okay and that process finished now then? Did you say that period of-**

P18: Yes, yes, we didn’t know how long it would take us to do the survey when we started, so we were sort of extending it year by year, but we didn’t want to go on too many years, and the [wildlife charity] surveying tends to work in five year cycles, from say, 2015-2019, so we coincided it with those years.

**INT: Okay.**

P18: We’re still getting records in, but they’ll be just going into the database for future use.

**INT: So now you’re freed of that kind of target to do that gap filling, how do you choose where to record now?**

P18: We’re writing it up now.

**INT: Okay.**

P18: Sorting out the records.

**INT: So you’re not doing much recording yourself at the moment, in terms of butterflies?**

P18: I’m not going out into [CITY] much, and last year was the first year after the end of the survey, and we had Covid, so in that respect, if we had had Covid in 2018 or something like that, it would have been really frustrating. So no, I’m not doing that, but I’m still doing the local transects. I’m still doing the [species], I’m still doing the hay meadows.

**INT: So you do a UK BMS transect, do you?**

P18: Transects yes.

**INT: So have you just got the one of those?**

P18: No, we’ve got two.

**INT: Two, okay. And you share that with somebody, do you?**

P18: Yes. We’ve got a team of about three of us, usually.

**INT: Okay.**

P18: So we do it on a rota system.

**INT: Yes, and that makes it a bit more manageable than trying to-**

P18: Yes, yes.

**INT: Yes, yes, because it’s quite a time constraint isn’t it, especially if you’re working as well, it’s difficult to find the time in the right conditions.**

P18: Yes, yes, and in the right weather, because you know-

**INT: Yes, so then you do the [species] every year and then you’ve got the kind of hedgerows and meadows as well. So who’s coordinating the other surveys then, the meadows-**

P18: The other local surveys are done, [Conservation Group] coordinates them, so I play quite a role in that. The meadows, I’ve got someone else who I’ve sort trained up over the years, who is very proficient and conscientious. So he usually manages to do at least half of them, and then for the [species], I usually do a systematic walk overs twice or thrice in a season, and the others report the records as they find them, sometimes taking photographs on their phones and sending those in as well, which helps us to know which, where to go, but also if we miss anything, then we know that pond’s been covered.

**INT: And then how are those data used from those different surveys, from the [species] survey and the hedgerows and the meadows?**

P18: Anyone who’s got any interest in doing anything else, then we’ll encourage them to do that. I mean, we would try doing more surveys ourselves, but we just don’t have the time to take on more, yes.

**INT: So are you analysing the data from those surveys and using it to think about management of sites and things like that?**

P18: Yes, we analyse the data and then we put something out locally, feed it into the various recording schemes and then also keep an eye on what the pattern is over the years.

**INT: And so do you think your motivations for recordings differ between those different types of surveys you’re doing? Do you feel like you’re doing them for different purposes or are your motivations similar across the different surveys?**

P18: Yes, there are different outputs reached, so I suppose we’re motivated to meet those outputs. Yes, it’s difficult to know how to answer that one because at the end of the day, they’re all sort of recorded, wildlife recording projects, but they are very different, you know, they’re different seasonally, different times, the type of the species you’re looking at and the recording methods used.

**INT: But it seems like it’s directly linked to some kind of conservation management, a lot of it, anyway.**

P18: Yes, we can use all the data, as a check on what we’re doing-

**INT: Yes-**

P18: -and in some cases, an early warning system as well, that we can actually use the results to actually allocate areas for say, after [unclear 00:20:00] cutting for hay, which we wouldn’t have picked up on if we just looked at the fields.

**[00:20:07]**

**INT: Mhmm, and then once that data’s passed on, like you say, to the other recording schemes, the relevant recording schemes, do you get any feedback from them about how those data are used?**

P18: I’m not sure we get that much feedback. I expect, at some stage, someone will find a great use for the data or tapped into it. The amphibian people seem quite impressed at the length of the survey. They can’t find a longer running survey-

**INT: Oh really?**

P18: -that’s been done in that way, so- I’m sure there must be some, but-

**INT: Yes, and so I guess, are there things that you hope that data are used for, once it gets passed on?**

P18: Yes, yes, I mean we use it ourselves, and then the other data is there. It’s in the various databases, so it can be used at any time, and also, if any other information becomes available, for example, with the [species] for example, as well as the pond restoration having a big effect on the populations, it’s also the weather from year to year. So you can look at different patterns of weather, see how that was affecting the spawn and the [species] population.

The best fit with weather is the amount of rainfall or the dryness of the ponds, two and three years prior to the current year, and that seems reasonable, because sometimes the ponds will dry out before the froglets have managed to get out of the pond. So if that happens, then that generation will perish in that pond, or only a very few of them get out, but then you see that effect two or three, in terms of breeding, those will reach maturity two or three years later, which is when you then find you dropping off spawn been laid.

**INT: That’s really interesting. I was wondering if there was that lag, because- So we had frogpawn and tadpoles in our pond last year for the first time, and then we’ve not had anything this year. So I was wondering if they might come back next year, perhaps when they reach maturity maybe.**

P18: Yes, I mean the adult- those already adults, in year one, will carry on going to the point for the remainder of time, but those ones which, they’re young in that pond during the dry year, they didn’t get out in time, that’s obviously made a big depletion in the population going forward. So when those existing adults die, or get [unclear 00:22:59] or whatever, then they haven’t got that replacement generation to follow on from.

**INT: Yes, interesting. So then you presumably produced an atlas did you, from the targeted survey you did in [CITY] over those five years?**

P18: We’re working on it.

**INT: You’re writing it up, yes. And so beyond kind of producing the atlas, are there other things that you will do with that data, in terms of looking at distribution changes and things like that? Statuses of species?**

P18: Yes, if we wanted to do more advanced work, some of the species have increased in [CITY] during recent decades, and there seems to be a pattern involved, so it would be interesting to analyse what exactly is going on and the reasons for it. That’s one thing. There could be a lot of work on that, providing there’s enough data to support it, which is not always the case, even with the distribution, doesn’t necessarily tell you when things first arrived or the [unclear 00:24:12] quantity, but it gives you a good guide.

**INT: Mhmm. And do you see yourself looking at other species or moving into other species groups in the future? Have you got that desire to kind of- I mean, you said you collect incidental records of other interesting things you see-**

P18: Yes, I mean given the chance, yes, I’d love to do mosses. I’d love to do a bit more on flora. Although there’s the [NATURAL HISTORY SOCIETY] site is working on flora atlas at the moment, so I think they’ve done most of the recording for that. I think they’re getting towards the analysing stage for that, but that would be another thing. Yes, mosses. I’d love to do more insect groups, beatles and things like that, yes.

**INT: But it’s having time, I guess, to-**

P18: Yes, yes.

**INT: And do you have people that you can go to for support with that kind of thing?**

P18: Oh yes, yes, there are- within [CITY] there’s quite a few. I met other experts, so if I needed support, yes, I could find it.

**INT: And is that through the [nature organisation]?**

P18: Yes, yes, mainly, and then obviously with all the links that they have with other organisations too.

**INT: Yes, yes, and is the social side of things important for you in recording? Do you like to go out with other people, or is it a kind of solitary activity for you?**

P18: I don’t seek the solitude, but unfortunately, yes, surveying does tend to be fairly solitary or in small groups, because obviously, I suppose there’s only so many people have got that sort of inclination to record, and then those that have are not necessarily all available at the right time with the weather or other conditions are right with the seasons.

It’s difficult getting people together, but then in terms of sort of sharing the results and discussing issues and things like that, yes, and obviously, it’s quite important at the local community level, where you’re translating the results of the survey into things which people can understand and relate to, in terms of practical conservation work and explaining why work’s been done in a certain way and what the success of last year’s work is, for example. So yes, people like that.

**INT: Is that what you do with then conservation volunteer group that you’re involved with then?**

P18: Yes, we feedback a lot of the information to the conservation group into the work programme, yes.

**INT: Okay. So do you ever respond to requests to go and record a particular place, and is that something that you would be willing to do, or are you busy enough with the things that you want to do?**

P18: At the moment I’m busy enough with what I’ve got, but you know, things might change, I don’t know.

**INT: And are there particular organisations that you would be more willing to respond to those sort of requests from?**

P18: I would think there must be quite a few organisations which are involved in some of the lesser recorded species, so yes, I think that would appeal.

**INT: Yes.**

P18: I’m not sure whether I’d be so keen on the more widely, more sort of study groups.

**INT: Yes, and that’s because you kind of recognise the importance of understanding more about those under recorded groups?**

P18: Yes, yes. I think yes, I’d rather do something that- where there’s a gap in a knowledge than just recording for the fun of it.

**INT: Yes, okay. I think that covers everything that I’ve got on my list. Is there anything else you wanted to say about why you record or how you record, that you haven’t said already?**

P18: There probably are things but [laughs]- No, what, going back to your remit, what are you trying to extract in terms of getting answers for? Are there things that I haven’t covered or-

**INT: Well, I think you’ve covered everything that- so the types of information that are useful to us, I guess specific to this project, are the organisations that people interact with, and go to for information and receive information from, and so that kind of helps us understand the types of organisation that people are more, like trust and are more willing to want to work with. We’re trying to understand things like, why people might not want to go to a particular site or whether people would be willing to go to sites where there may not be likely to see very much, but data are needed from.**

**[00:30:03]**

**And I think it’s just kind of appreciating that different recorders have different motivations, and different things that they want to do and different priorities, and how we can tap into the section of the recording community that’s more likely to want to, perhaps, go to places where records are needed. Does that make sense?**

P18: Right, yes yes, and was there something in some of the material that you were putting out that you were focusing on a 10 kilometre square recording for some groups, or have I picked that up from somewhere?

**INT: So the idea actually is to try and work at a bit of a finer spatial resolution than that, so that’s part of the aim of the project is to perhaps map species at a finer resolution. So that’s part of what the modelling team are looking at, is how to produce models at that finer resolution. The idea being that that sort of data are perhaps not that readily available for people that might want to use it, so like local authorities or conservation organisations. They may have good records about particular sites, but maybe not outside of those particular sites, and so it’s looking at whether we can get that finer scale data in the- [unclear 00:31:43] call it wider countryside, but it’s not wider countryside, it’s you know, beyond the well-recorded sites, I guess.**

P18: Yes, I mean in terms of the [City] survey for butterflies, yes, we’re trying to fill those gaps. We were trying to fill a lot of those two by two kilometre squares, which were in the more, as I say, areas which are not surveyed as much, they tend to be the more boring areas, but even then, when you got to the site, you would nevertheless sort of gravitate towards those parts of the sites which had a bit of greenery, you know, stream side or local park, even if it was a suburban one managed by a local authority. So- but it was a matter, sorry, it’s very uneven coverage beforehand in [CITY], because obviously people are going to the more wider recorded sites.

Some of the schemes like the [wildlife charity] garden watch thing, you get a slightly better coverage there, but then you’ve got the issue that you need to sort out which are correct records and which are not, which takes up some time. I mean you can’t check the common species. You can weed out the rare species which turn up in people’s gardens, but yes, it was somewhat more difficult getting those records from the boring areas.

**INT: Yes, and were you, I think you said that you would go to the middle of a square that was under recorded, but were you also looking at maps before you went to a place, to identify the likelier places that you might see something?**

P18: Well, yes, I mean, there’s quite a bit of that going on. I mean if you looking at a set of squares, then obviously you try to head for and work out a route near to the intersection of four squares and then take a route through the four of them, but quite near to the intersection.

**INT: Okay.**

P18: So if it was- so that way, you could obviously maximise the number of species per tetrad, rather than spending a lot of time in one tetrad. So that tends to get you more dots on the map, so to speak, quicker.

**INT: Yes, so quite a lot of planning before you went out, in terms of the route you were going to take and, yes.**

P18: Yes.

**INT: So you’re almost doing as much planning as you are actually going out and-**

P18: Oh yes, yes. Sometimes you take two hours studying maps before you set off, and obviously, not just a matter of studying one map, you were trying to cross reference various maps to get the maximum out of the time available.

**INT: Yes, and presumably recording everything that you saw as you went, yes.**

P18: Yes, yes.

**INT: Yes, an enormous task. Did you get to every square? Not you personally, but did you get a record from every square, or there must have been a percentage that you were not able to get to?**

P18: Yes we’re still waiting for the maps to come back, so that will give us a big idea of how much we missed. We’ve also asked for maps of one or two of the most common species on a one kilometre square basis, because that will also give us an idea of how near or far off we are, in terms of coverage, yes. So it’ll be interesting to look at those maps. That will give us a good clue.

**INT: Yes-**

P18: I know there are areas we’ve missed. We’ve visited every tetrad in [CITY]. We know that. We’ve got records from every tetrad but on the mono basis, it would be a lot more disperse.

**INT: Yes. What about the financial side of things, because it must cost a lot just to do that travelling around as well, going around-**

P18: Yes I’ve covered a lot of that myself, well, I’ve covered all of it myself, really. Hopefully, we’ll get some help with the production of the atlas and we’ve had a lot of help from the record centre as well, in that respect, in terms of the data management, once we’ve given them the records and undertaken the verification.

**INT: Okay. Is it them that’s producing the maps for you then?**

P18: They’re doing the maps. We’ve done a large proportion of the records. One thing [unclear 00:36:39] is the, on the UK BMS data, the individual records can be extracted quite easily from the transect data, but that data doesn’t appear to be available to the local record centre. So, I mean, I didn’t mind doing it, but we had to provide the local record centre with the extracted butterfly data.

**INT: Right. That doesn’t happen automatically?**

P18: Well one of the transect records, each transect is usually split into a number of sections and each of those sections has got a grid reference at the start of the central point, which is quite useful, because obviously, sometimes a transect can go through several grid squares, whereas the general resolution that the Biological Record Centre were using, they were just using a central grid reference for the whole transect.

**INT: I see.**

P18: So you get far more records if you’re looking at the individual grid sections, and also, obviously more accurate as well, because at the central grids reference might not necessarily be in the same tetrad, monad or even 10 by 10 kilometre square as a good reference given for the site.

**INT: Yes.**

P18: So that could be a big source of error.

**INT: Yes.**

P18: But then it’s quite easy to extract each individual species record for each section of the transect, route on each date that it was recorded there during the year. So you’ve potentially got all the components of a biological record-

**INT: Yes.**

P18: But we had to do that extraction, and then give the data sets to the Biological Record Centre, for the Biological Record Centre to upload into their systems.

**INT: Yes.**

P18: So I would have thought, bearing in mind all the information goes through to central national database, it would have been easier for the national database just to run the whole program, chop the records up and then distribute them to the record centres.

**INT: Yes. I’ll mention that to [Name] and [Name]. They’re on our project team. I don’t know if you know [Name] and [Name]? They’re the people that are on our project team from [wildlife charity], so I’ll mention that to them. So is there anything else that you wanted to say about why you record or how you record, that we haven’t covered?**

P18: No, no. I think that’s-

**INT: No? We’ve covered it all? Okay. Well thank you very much for your time.**

P18: Thank you.

**INT: It’s most appreciated, and if you wanted to hear more about the project as we go, I’ve got a link where you can sign up to a mailing list, where you’ll receive updates about the project. So I can send that to you via email now. There’ll be updates about the project and also opportunities to get involved if you want to, but you don’t have to [laughs]. So yes, I can do that if you’re interested.**

P18: Oh, I’ll have a look.

**INT: Okay, lovely, and yes, I’ll keep an eye out for your report when it comes out as well. My sister’s in [LONDON], so I will, she’s up in [BOROUGH], so I will make sure that she looks out for it as well. Lovely, okay, thank you so much for your time.**

P18: Right, thank you, thank you very much.

**INT: Take care then.**

P18: Bye, bye.

**INT: Bye.**

**Audio ends: [40:37]**