1

00:00:00,000 --> 00:00:06,720

October 14th, 1969, Marjorie Fish speaking.

2

00:00:06,720 --> 00:00:12,480

I think probably the best way to answer your questions is if I send you the material as

3

00:00:12,480 --> 00:00:13,480

I have it now.

4

00:00:13,480 --> 00:00:16,480

I have only a few copies and I would like it back after a bit.

5

00:00:16,480 --> 00:00:22,920

But this way you could go over the material and decide for yourself what the questions

6

00:00:22,920 --> 00:00:29,120

are that you want to ask and we could go over more of it in much more detail then rather

7

00:00:29,120 --> 00:00:31,000

than starting from scratch.

8

00:00:31,000 --> 00:00:32,440

There's quite a bit of material.

9

00:00:32,440 --> 00:00:33,960

I hate to write.

10

00:00:33,960 --> 00:00:34,960

I'm a rotten seller.

11

00:00:34,960 --> 00:00:40,320

But I've done more writing in these last, well, this last years and I think I've done

12

00:00:40,320 --> 00:00:41,320

in the previous twenty.

13

00:00:41,320 --> 00:00:46,560

Much of the material is highly technical but I'll explain anything you have any questions

14

00:00:46,560 --> 00:00:47,560

on later.

15

00:00:47,560 --> 00:00:50,480

You have a chance to talk with me on it.

16

00:00:50,480 --> 00:00:55,680

There's still a lot that I haven't put into writing but the writing hits most of the high

17

00:00:55,680 --> 00:00:57,680

points of the research.

18

00:00:58,240 --> 00:01:05,320

As for the books and material used, I was using the star catalogs that are used at the

19

00:01:05,320 --> 00:01:12,200

observatories for the positions of the stars and the parallaxes and I have the complete

20

00:01:12,200 --> 00:01:16,320

rundown of all the available parallaxes that I know of.

21

00:01:16,320 --> 00:01:22,520

That's the Yale Trichometric Parallax Catalog, the Bright Star Catalog, the Yale Trichometric

22

00:01:22,560 --> 00:01:28,240

Parallax Catalog supplement from 1962 and the Glycee Catalog.

23

00:01:28,240 --> 00:01:33,600

I was using the Glycee Catalog for the most part and you'll get a chance to see these.

24

00:01:33,600 --> 00:01:37,800

The data was very, very hard to come by.

25

00:01:37,800 --> 00:01:45,440

The material is, well, just isn't normally used by lay people and so it just is not available

26

00:01:45,440 --> 00:01:51,840

in libraries and I wrote to a number of universities and I went to observatories and I went to

27

00:01:51,840 --> 00:01:57,640

planetariums and very few people had the catalogs and practically no one would allow anyone

28

00:01:57,640 --> 00:02:01,120

to use them or even look at them.

29

00:02:01,120 --> 00:02:06,240

And finally at Perkins, two years after I started trying to get this data, I was able

30

00:02:06,240 --> 00:02:12,080

to get into the Perkins Observatory to the kindness of the librarian and she allowed

31

00:02:12,080 --> 00:02:13,080

me to look at them.

32

00:02:13,080 --> 00:02:19,800

I found which catalogs I needed and hurriedly copied the data because, again, I wasn't

33

00:02:19,800 --> 00:02:24,680

supposed to be there until very kind letting me in and they've been very kind since then.

34

00:02:24,680 --> 00:02:28,400

Practically rolled out the red carpet and it just made me feel marvelous because I've

35

00:02:28,400 --> 00:02:30,800

had this terrific time getting them at data.

36

00:02:30,800 --> 00:02:36,840

As for the textbooks or sources of material to determine which stars could have planets

37

00:02:36,840 --> 00:02:43,440

or life, those were listed, well parts of them were listed in that list that I gave you

38

00:02:43,440 --> 00:02:46,680

at the meeting if you picked up one of those.

39

00:02:47,040 --> 00:02:51,440

Sagan's Intelligent Life in the Universe, and of course he's a radio astronomer and

40

00:02:51,440 --> 00:02:58,160

quite highly thought of in that field, is more or less accepted on the astronomy part.

41

00:02:58,160 --> 00:03:03,960

Sushu Huong has done a review of his book and he recommends the astronomy part although

42

00:03:03,960 --> 00:03:07,000

he doesn't go along too much with the extraterrestrial part.

43

00:03:07,000 --> 00:03:11,960

None of mine is based on the secondary part of the book just on the straight astronomy.

44

00:03:12,240 --> 00:03:15,040

Suresh Off would be the most controversial.

45

00:03:15,040 --> 00:03:21,800

He's a member of the Royal Astronomical Society, but he has quite a bit of speculative data

46

00:03:21,800 --> 00:03:26,360

but he labels it as such and gives the pros and cons of his data as he goes along.

47

00:03:26,360 --> 00:03:31,760

And I thought his ideas were quite interesting although I found some flaws in some of them.

48

00:03:31,760 --> 00:03:34,720

There's quite a few textbooks out now on exobiology.

49

00:03:34,720 --> 00:03:37,720

Most of these came out after 1963.

50

00:03:37,720 --> 00:03:44,480

Stephen Dole has one, or actually two out, one published with Isaac Asimov.

51

00:03:44,480 --> 00:03:53,160

And Ikeid, I'll have to look up his first name, has one out and there's quite a few others.

52

00:03:53,160 --> 00:03:56,320

And there's nothing particularly controversial over these.

53

00:03:56,320 --> 00:04:01,680

Pretty much boils down to that a star like the sun is going to have planets like our own

54

00:04:01,680 --> 00:04:04,400

or could have planets like our own.

55

00:04:04,440 --> 00:04:08,560

So you need a star within a very close range of the sun and it would have to be a single

56

00:04:08,560 --> 00:04:11,760

star generally speaking.

57

00:04:11,760 --> 00:04:15,120

Some controversies on whether they could be doubled or not, but I was working strictly

58

00:04:15,120 --> 00:04:17,600

with the single stars.

59

00:04:17,600 --> 00:04:23,640

Question on the margin of error in the stars.

60

00:04:23,640 --> 00:04:29,760

It would be at most when the model was first made and the picture is taken.

61

00:04:30,120 --> 00:04:36,120

Hanging error of half a light year, but I doubt if there'd be anywhere near that much.

62

00:04:36,120 --> 00:04:40,120

Assuming that the parallax measurement that the astronomers took was correct.

63

00:04:40,120 --> 00:04:45,120

Now as the star is close to the Earth, the parallax measurement is much more accurate.

64

00:04:45,120 --> 00:04:51,120

As it gets further out towards the 32 light years, the measurement gets further and further

65

00:04:51,120 --> 00:04:56,120

off between the different catalogs.

66

00:04:56,480 --> 00:05:01,480

When you get out to 100 light years, you've got quite a margin of error.

67

00:05:01,480 --> 00:05:05,640

By the time you get to 200 light years, you better forget it and go to some other kind

68

00:05:05,640 --> 00:05:09,640

of measurement rather than the trigonometric parallax.

69

00:05:09,640 --> 00:05:17,640

To me, most of the stars are very close from one catalog to another with just part of a

70

00:05:17,640 --> 00:05:19,640

light year difference in their measurement.

71

00:05:19,640 --> 00:05:24,640

A few of them are two or three light years of difference.

72

00:05:24,640 --> 00:05:29,120

The unfortunate thing is that the base stars happen to be one of the ones where there's

73

00:05:29,120 --> 00:05:32,120

quite a bit of difference in the different catalogs.

74

00:05:32,120 --> 00:05:38,120

The latest published measurement would put it out to around 38 light years.

75

00:05:38,120 --> 00:05:43,120

The one I was using before I got that measurement and when the model was made, I didn't get

76

00:05:43,120 --> 00:05:48,120

that measurement until after that model was made, but was at 30 light years, which is

77

00:05:48,120 --> 00:05:52,120

the Cape parallax from Africa.

78

00:05:52,120 --> 00:05:57,520

I suspect if my interpretation is correct that either the Cape parallax or some way about

79

00:05:57,520 --> 00:06:02,520

halfway between the two is their actual distance out.

80

00:06:02,520 --> 00:06:08,520

Gleasy parallax for that particular star is farther out than that jet too, and if it is

81

00:06:08,520 --> 00:06:15,520

as far as the Gleasy catalog states, I would say that probably the pattern is just coincidence.

82

00:06:15,520 --> 00:06:22,040

No, quite what to say about publishing because I really wasn't intending to do much in the

83

00:06:22,040 --> 00:06:23,120

way of publishing.

84

00:06:23,120 --> 00:06:33,160

I have quite a regard for four, and I really enjoy talking with Mr. Ness, but I made the

85

00:06:33,160 --> 00:06:39,120

report basically for APRIL as an APRIL member, and I wanted to give them a chance to act.

86

00:06:39,120 --> 00:06:41,400

Dr. Stanford and I have been in communication.

87

00:06:41,400 --> 00:06:46,800

He's been pretty busy and hasn't had a chance to do too much with it yet, and he may not

88

00:06:46,800 --> 00:06:50,560

understand quite how I place the stars in the model.

89

00:06:51,080 --> 00:06:57,560

Mitchell of Perkins asked me to come down and show him just how I did it because he

90

00:06:57,560 --> 00:07:05,320

was teaching a class in stellar mechanics, and he wanted his students to see the model

91

00:07:05,320 --> 00:07:11,760

and to go over the placement idea, to have some basic idea on how it was done.

92

00:07:12,720 --> 00:07:20,680

Send you the inflated letter that more or less confirms that the model is at least reasonably

93

00:07:20,680 --> 00:07:21,680

accurate.

94

00:07:21,680 --> 00:07:23,880

He has been very kind.

95

00:07:23,880 --> 00:07:31,320

I do not mean that he agrees with my extraterrestrial theory of UFOs because my work at Perkins

96

00:07:31,320 --> 00:07:37,040

Observatory has been basically strictly astronomy, and I've gone over it with him, but I didn't

97

00:07:37,040 --> 00:07:40,040

put him on the spot by asking him what he thought of it.

98

00:07:40,040 --> 00:07:43,040

It's kind of a touchy situation.

99

00:07:43,040 --> 00:07:49,200

As I mentioned before, it's very hard for an amateur to get into an observatory in the

100

00:07:49,200 --> 00:07:54,240

research part, and I wouldn't want to do anything that would embarrass the people who are kind

101

00:07:54,240 --> 00:07:57,360

enough to let me in and to help me.

102

00:07:57,360 --> 00:08:01,360

Fully in accord with you and that I don't want to get into the pulp magazines.

103

00:08:01,680 --> 00:08:06,480

I wanted it basically for AFRO.

104

00:08:06,480 --> 00:08:14,520

I also had sent material to Dr. Heineck, who I think is a fair and impartial judge.

105

00:08:14,520 --> 00:08:16,560

I don't know if he's reading it or not.

106

00:08:16,560 --> 00:08:22,360

He was very kind in having an associate answer some of my astronomy questions.

107

00:08:22,360 --> 00:08:27,680

However, neither one of them had read the report very carefully, but it was very long.

108

00:08:27,680 --> 00:08:30,520

I couldn't see why they might not.

109

00:08:30,680 --> 00:08:36,440

I also want a copy to go to Jack Valley if I could never get in touch with him, because

110

00:08:36,440 --> 00:08:40,520

he was the one who first got me interested in UFOs.

111

00:08:40,520 --> 00:08:47,840

The FSIC, these were the only ones I was really interested in getting the report to.

112

00:08:47,840 --> 00:08:54,560

Not even completely sure that it should be generally made public because it's a lot easier

113

00:08:54,560 --> 00:09:00,440

to weed through contact reports when you have some basic idea of what's going on.

114

00:09:01,360 --> 00:09:05,360

Which ones can be reliable and which ones aren't reliable.

115

00:09:05,360 --> 00:09:10,360

Since contact reports are so interesting and since you seem especially interested in them,

116

00:09:10,360 --> 00:09:13,360

I was wondering if you could help me out on one particular aspect.

117

00:09:13,360 --> 00:09:20,360

I remember a vaguely reading of a contact report where the contactee said that they

118

00:09:20,360 --> 00:09:24,360

had claimed they had visited 40 different worlds.

119

00:09:25,280 --> 00:09:31,280

If my mapping theory is correct, this will be approximately how many they may have gone to.

120

00:09:31,280 --> 00:09:36,280

I can explain this more to you later too, but right now they showed about between a

121

00:09:36,280 --> 00:09:39,280

fourth and an eighth of the sky area.

122

00:09:39,280 --> 00:09:47,280

There were 10 stars beside the base star, so 40 would be approximately correct if they're

123

00:09:47,280 --> 00:09:50,280

visiting in all the other directions also.

124

00:09:51,200 --> 00:09:57,200

I tried to find this report, but I've got so many reports of all, I get all sorts of

125

00:09:57,200 --> 00:09:59,200

different kinds of materials.

126

00:09:59,200 --> 00:10:02,200

Some of them extremely poor, some of them pretty good.

127

00:10:02,200 --> 00:10:07,200

I do subscribe to the Find Auxury News from England, so I know what you mean about that magazine.

128

00:10:07,200 --> 00:10:15,200

Do you remember any contact reports where 40 different places were mentioned?

129

00:10:16,120 --> 00:10:23,120

I started to look at the astronomy part, trying to develop this at Perkins as much as possible,

130

00:10:23,120 --> 00:10:26,120

and then let them carry it through if there's anything in it.

131

00:10:26,120 --> 00:10:33,120

It needs to be carried out to the 65 years at least to make sure that this star grouping

132

00:10:33,120 --> 00:10:38,120

is not just a neighborhood quirk and is actually what is happening out in space.

133

00:10:39,040 --> 00:10:45,040

You see these groupings of light stars in a catalog would be very difficult, and I'll

134

00:10:45,040 --> 00:10:49,040

explain that too in Star placement in the catalog.

135

00:10:49,040 --> 00:10:56,040

I'm planning on building possibly two models out to 65 light years, one with just the stars

136

00:10:56,040 --> 00:11:04,040

brighter than the absolute magnitude of plus 7.5, and the other would be have all the stars

137

00:11:04,960 --> 00:11:09,960

and now there's a thousand stars, actually a thousand systems, many of these are double

138

00:11:09,960 --> 00:11:13,960

stars, 65 light years.

139

00:11:13,960 --> 00:11:18,960

This raises problems in hanging them because your lines are getting so close together if

140

00:11:18,960 --> 00:11:24,960

I would use the same size base, which means I should go to a larger base and this creates

141

00:11:24,960 --> 00:11:28,960

other problems in handling anything that large.

142

00:11:29,880 --> 00:11:34,880

There are problems with the lines tangling, so I'm going to have to work out some ideas

143

00:11:34,880 --> 00:11:41,880

on this before I actually go ahead and start it to be turning the tape over now so we'll

144

00:11:41,880 --> 00:11:46,880

have at least some leader here until I'm still rather self conscious of this tape recorder.

145

00:11:46,880 --> 00:11:52,880

The thing I'm working on is all the stars that could have planets with light up to 100

146

00:11:52,880 --> 00:11:53,880

light years.

147

00:11:54,800 --> 00:11:59,800

I have the 65 light year listing done, although I'm rechecking it with the double star catalog

148

00:11:59,800 --> 00:12:05,800

to see if any of these are such ascopic binaries that weren't marked as such in the other catalog.

149

00:12:05,800 --> 00:12:11,800

Markings for binaries are quite often found in the footnotes and sometimes the footnotes

150

00:12:11,800 --> 00:12:14,800

are not as accurate as they could be.

151

00:12:14,800 --> 00:12:18,800

Sometimes too, the person who's writing the catalog isn't interested in that particular

152

00:12:18,800 --> 00:12:23,800

aspect and doesn't mark it as such, and so you may think you have a single star that's

153

00:12:23,800 --> 00:12:27,720

not in the first two doubles aren't nearly as likely to life.

154

00:12:27,720 --> 00:12:33,720

Listing of stars and the models should take at least a full winner if not a couple years

155

00:12:33,720 --> 00:12:37,720

because I'm setting for the scratch for the 100 light year model.

156

00:12:37,720 --> 00:12:41,720

Again, I'll have to explain some of these things when we get together and I can show

157

00:12:41,720 --> 00:12:44,720

you the catalogs themselves and what it entails.

158

00:12:44,720 --> 00:12:51,720

Ness asked me about the possibility of not going on radio, but I carried it for the time

159

00:12:51,720 --> 00:12:52,720

being.

160

00:12:52,720 --> 00:12:53,720

I just don't know.

161

00:12:53,720 --> 00:12:56,720

I'm not very keen on public speaking.

162

00:12:56,720 --> 00:13:03,720

In fact, the talks before the acronym, as I mentioned before, was my first real voluntary

163

00:13:03,720 --> 00:13:04,720

public speaking.

164

00:13:04,720 --> 00:13:10,720

The teacher sometimes I have to do something, the PTA or something, but I took out of it

165

00:13:10,720 --> 00:13:12,720

every time I possibly can.

166

00:13:13,720 --> 00:13:22,720

If after a dozen that I would probably go to fuller or a Ness side it's that important.

167

00:13:22,720 --> 00:13:27,720

I said before I don't want it to get in the wrong hands.

168

00:13:27,720 --> 00:13:36,720

I was basically aiming at the people who could understand the star data because I don't want

169

00:13:36,720 --> 00:13:37,720

to accept it as a face value.

170

00:13:37,720 --> 00:13:43,720

This is why I was so tickled to get your letter because you're the first one of all the groups

171

00:13:43,720 --> 00:13:46,220

that really wanted proof and this is what I want.

172

00:13:46,220 --> 00:13:52,720

I want someone to actually examine it to give their opinion, to try to tear it apart and

173

00:13:52,720 --> 00:13:56,720

see what makes it tick and see if they can find any flaws with it.

174

00:13:56,720 --> 00:13:58,720

I've gone over it with the fine-tube comb.

175

00:13:58,720 --> 00:14:04,720

I checked the stars in the basic pattern in the double star catalog which just came out.

176

00:14:04,720 --> 00:14:10,720

I just got it a couple of weeks ago and found any flaw in it.

177

00:14:10,720 --> 00:14:16,720

Except the two stars where the line was a little bit shorter, actually considerably shorter,

178

00:14:16,720 --> 00:14:21,720

than Betty had drawn on her map which I think is because they were large jumps and you could

179

00:14:21,720 --> 00:14:23,720

see they were large jumps.

180

00:14:23,720 --> 00:14:28,720

So she made her lines long instead of the short lines that they show from her particular

181

00:14:28,720 --> 00:14:29,720

viewing angle.

182

00:14:30,720 --> 00:14:36,720

Again, if you could take the map and actually see the model and though I don't have my model

183

00:14:36,720 --> 00:14:41,720

anymore because I'm giving it to the Ohio State University or Perkin, anyway, I'm leaving

184

00:14:41,720 --> 00:14:46,720

it to Dr. Mitchell to discuss what he wants done with it.

185

00:14:46,720 --> 00:14:53,720

My niece has made one for a science fair project and you could get a very good idea from it.

186

00:14:53,720 --> 00:15:03,720

The fact that it is not easy to make a pattern similar to Betty's map and have it be a logical

187

00:15:03,720 --> 00:15:08,720

pattern to judge for yourself when you actually do it.

188

00:15:08,720 --> 00:15:16,720

Written report is long, rambly, and repeats itself quite a bit.

189

00:15:16,720 --> 00:15:22,720

I had originally intended just to make the star catalog and then I decided I better put

190

00:15:22,720 --> 00:15:25,720

a page on it giving what the abbreviations are.

191

00:15:25,720 --> 00:15:30,720

Most astronomers know these automatically until it's not really needed there.

192

00:15:30,720 --> 00:15:36,720

And then I thought, well, I better have a paragraph trying to explain how I did the model.

193

00:15:36,720 --> 00:15:41,720

I was on page by page, not necessarily in the order which they're now equipped.

194

00:15:41,720 --> 00:15:50,720

And the writing of it took over, well, I started it in February and I didn't finish with the

195

00:15:50,720 --> 00:15:56,720

main party of the Mimeographs writing until June.

196

00:15:56,720 --> 00:16:01,720

And since then I've been adding pages that I've been duplicating in the copy machine at the

197

00:16:01,720 --> 00:16:04,720

Bowling Green Library.

198

00:16:04,720 --> 00:16:08,720

So all in all, it's been written over a period of nine months.

199

00:16:08,720 --> 00:16:16,720

These things were suggested by some teachers who were rather interested and read it and

200

00:16:16,720 --> 00:16:21,720

felt they didn't understand so they wanted a little more explanation and so I added these,

201

00:16:21,720 --> 00:16:25,720

but it still is not particularly well organized.

202

00:16:25,720 --> 00:16:29,720

So you kind of have to dig to get the information.

203

00:16:29,720 --> 00:16:33,720

It's quite a rough draft and I'm not intending to write a book or anything.

204

00:16:33,720 --> 00:16:37,720

This is, the rough draft is going to be it.

205

00:16:37,720 --> 00:16:39,720

The draft was not made for publication.

206

00:16:39,720 --> 00:16:49,720

It was made strictly as a research project for ACRO to do what they thought best if they ever act on it.

207

00:16:49,720 --> 00:16:52,720

And I assume eventually they will.

208

00:16:52,720 --> 00:17:00,720

I have had some communication from them recently that they're considering it and it looks quite promising.

209

00:17:00,720 --> 00:17:02,720

They understand how the models put together.

210

00:17:02,720 --> 00:17:04,720

It's really not that hard to do.

211

00:17:04,720 --> 00:17:09,720

And it would make an interesting project for anyone interested in astronomy or interested in knowing how the

212

00:17:09,720 --> 00:17:12,720

near stars do fit together.

213

00:17:12,720 --> 00:17:20,720

My qualifications to do this research, I've had one course of an astronomy in college about 20 years ago,

214

00:17:20,720 --> 00:17:25,720

which doesn't amount too much except it did show me star placement.

215

00:17:25,720 --> 00:17:31,720

And I quite an interested in it since childhood, but my main interest has been in biology and anthropology.

216

00:17:31,720 --> 00:17:33,720

My degree was in sociology.

217

00:17:33,720 --> 00:17:36,720

I went back from my teaching credits later.

218

00:17:36,720 --> 00:17:43,720

I also had a moment to the pre-med course with a great interest in biology.

219

00:17:43,720 --> 00:17:50,720

Being passionate about anthropology makes some euphorology so interesting.

220

00:17:50,720 --> 00:17:59,720

When you consider how many different kinds of cultures there might be and add to this a different biological background,

221

00:17:59,720 --> 00:18:07,720

which could lead into even more complex and far-reaching cultural differences.

222

00:18:07,720 --> 00:18:11,720

Prospects are highly intriguing to say the least.

223

00:18:11,720 --> 00:18:16,720

I don't know what to do about mentioning this right now.

224

00:18:16,720 --> 00:18:26,720

I don't want anything in print for a while yet until Apple has a chance to act since they have been doing some of the checking on it.

225

00:18:26,720 --> 00:18:29,720

I hope, I hope, I hope.

226

00:18:29,720 --> 00:18:38,720

I wouldn't care if your friend heard the tape, but I wish he wouldn't print it at this moment then.

227

00:18:38,720 --> 00:18:45,720

I'll report it. I forgot to mention I have quite a bit of speculation, but where it is speculation in this market as such.

228

00:18:45,720 --> 00:18:55,720

Being speculation, this quarter may or may not be true and any reason that it is not true,

229

00:18:55,720 --> 00:18:58,720

I would gladly accept and toss it out.

230

00:18:58,720 --> 00:19:07,720

It's just thoughts for mulling over and working with and possibly letting some other ideas come up.

231

00:19:07,720 --> 00:19:12,720

The astronomy data, however, is as accurate as I can get it.

232

00:19:12,720 --> 00:19:19,720

There might be some copy errors where I would have a catalog number inverted or something like that,

233

00:19:19,720 --> 00:19:22,720

which happens in the best of catalogs.

234

00:19:22,720 --> 00:19:29,720

I'm doing my best to find these and change them, but other than this, they are checked and rechecked,

235

00:19:29,720 --> 00:19:34,720

so I don't think you have anything to worry with on the strictly astronomy data.

236

00:19:34,720 --> 00:19:36,720

I'll see you later then, sincerely.

237

00:19:36,720 --> 00:19:37,720

Marge Fish.

238

00:19:37,720 --> 00:19:39,720

Yes, already.

239

00:19:39,720 --> 00:19:48,720

While I was waiting for the astronomy data, I tried to check out some of the more far out aspects.

240

00:19:48,720 --> 00:19:56,720

I went into hypnotism with whatever material I could get a hold of and read quite extensively in the field

241

00:19:56,720 --> 00:20:02,720

and tried experiments in it to see exactly what could or could not be done.

242

00:20:02,720 --> 00:20:12,720

Also, automatic writing and the experiments with telepathy and other ESP matters.

243

00:20:12,720 --> 00:20:18,720

These experiments, of course, are not nearly as extensive as the astronomy data and really don't prove anything.

244

00:20:18,720 --> 00:20:26,720

They're, I think, rather interesting as far as indicating what might be done for further experiments.

245

00:20:26,720 --> 00:20:30,720

They are certainly not conclusive.

246

00:20:30,720 --> 00:20:37,720

I originally had no intention of including any of this data in the report because it does sound a little far out,

247

00:20:37,720 --> 00:20:41,720

but probably for completeness, it ought to be in.

248

00:20:41,720 --> 00:20:51,720

Just finished reading Dr. Srinkel's article on UFO Perceptions and the latest flying saucer review special.

249

00:20:51,720 --> 00:20:56,720

It goes into the more far out aspects.

250

00:20:56,720 --> 00:21:01,720

I thought he might be interested in the research that I had done in this area,

251

00:21:01,720 --> 00:21:09,720

so I'm sending him a letter explaining what I discovered and also since he knows that I thought he would be interested in the proof

252

00:21:09,720 --> 00:21:15,720

that her report is accurate, I'll include a copy so that you can read it.

253

00:21:15,720 --> 00:21:21,720

As I say, this isn't the same quality or certainly isn't definite.

254

00:21:21,720 --> 00:21:25,720

The resect compared with the astronomy data.

255

00:21:25,720 --> 00:21:30,720

Because of its controversial character, I would not normally have included it.

256

00:21:30,720 --> 00:21:34,720

There are several things I didn't mention about my talk at Akron.

257

00:21:34,720 --> 00:21:40,720

One was I only got through about half of the data I had ready to present there.

258

00:21:40,720 --> 00:21:45,720

I'd be quite happy to go over the rest of that data with you if you're interested.

259

00:21:45,720 --> 00:21:55,720

Much of it, again, is rather technical, but has probably importance in reading through a contactee report

260

00:21:55,720 --> 00:22:02,720

and judging which one could be or which ones definitely are not true.

261

00:22:02,720 --> 00:22:09,720

If there's any chance of you reading the chapters in Sagan's Intelligent Life and Universe

262

00:22:09,720 --> 00:22:18,720

before we meet, just the chapters on star formation and which stars could have planets and planet formation.

263

00:22:18,720 --> 00:22:26,720

His write-up is fairly clear and I think you might have a better understanding of what we're going into.

264

00:22:26,720 --> 00:22:30,720

This is October 19th, 1969, March, this week.

265

00:22:30,720 --> 00:22:36,720

I received you the tape and your letter. Thank you very much for both.

266

00:22:36,720 --> 00:22:42,720

After listening to this letter, you may decide I'm too much of a coot to go any further and perhaps you're right.

267

00:22:42,720 --> 00:22:50,720

My interest range from A to Z, anthropology to zoology, including archaeology, astronomy, art,

268

00:22:50,720 --> 00:22:57,720

and I do sculpture and drawing, botany, chemistry, physics, and photography.

269

00:22:57,720 --> 00:23:02,720

I do my own darkroom work and every new media and art must be tried out.

270

00:23:02,720 --> 00:23:06,720

And I use things in areas where they aren't normally used.

271

00:23:06,720 --> 00:23:14,720

I found that the body, auto-body plastic works marvelously for sculpture, but the aluminum plastic doesn't.

272

00:23:14,720 --> 00:23:18,720

So things are always in a mess one way or another.

273

00:23:18,720 --> 00:23:24,720

Naturally, I want my work recognized and respected by leaders in the field and want the knowledge gained to be used.

274

00:23:24,720 --> 00:23:28,720

But that's the whole purpose of the research. I don't want publicity.

275

00:23:28,720 --> 00:23:33,720

I chose the people the copies were meant for with care.

276

00:23:33,720 --> 00:23:40,720

APRIL, FSIC, Heineken Valley are not going to jump in announcing the findings until a careful check has been made.

277

00:23:40,720 --> 00:23:46,720

Most of these people either have astronomical background or resources in the field for checking.

278

00:23:46,720 --> 00:23:50,720

The only problem is getting them to really look at it and check it out.

279

00:23:50,720 --> 00:23:54,720

This has proved much more of a problem than I realized.

280

00:23:54,720 --> 00:23:59,720

With a claim like mine, I had expected them to become at least intrigued enough to try to disprove it,

281

00:23:59,720 --> 00:24:03,720

then become interested enough to try to follow it through when they could not disprove it.

282

00:24:03,720 --> 00:24:07,720

I'm sure of the data within reasonable limitations.

283

00:24:07,720 --> 00:24:12,720

I had assumed that everyone in the field wanted to know where they came from.

284

00:24:12,720 --> 00:24:17,720

I put in cross-references and extra data so it could be spot-checked in a matter of an hour or two

285

00:24:17,720 --> 00:24:21,720

and thoroughly checked in about two days, point by point.

286

00:24:21,720 --> 00:24:25,720

The model could be built and checked inside of a week.

287

00:24:25,720 --> 00:24:27,720

Everything I've done can be checked.

288

00:24:27,720 --> 00:24:32,720

Since I've worked out all the methods, these could be followed and redone far easier than the first time

289

00:24:32,720 --> 00:24:36,720

while the method of attack had to be worked out.

290

00:24:36,720 --> 00:24:42,720

Star catalogs were used for cross-checking, so things missed by one would be caught in the next.

291

00:24:42,720 --> 00:24:47,720

Actually, for an astronomer, spot-checking is very easy if they would take the time.

292

00:24:47,720 --> 00:24:52,720

Once it is checked, Appra could take the credit and the headache.

293

00:24:52,720 --> 00:24:57,720

Appra was running a contest for the best research, the Dr. Fonnes Memorial.

294

00:24:57,720 --> 00:25:02,720

Mr. Greenwell wants me to enter it, but I disqualified myself as Dr. Heineck as a judge,

295

00:25:02,720 --> 00:25:08,720

and I wrote him before I knew that for help in the astronomical questions.

296

00:25:08,720 --> 00:25:14,720

I wrote Heineck and told him I was disqualifying myself so that he could answer the questions.

297

00:25:14,720 --> 00:25:20,720

So I had started the research years before and will be continuing it for years after probably.

298

00:25:20,720 --> 00:25:25,720

It was made as my contribution to Appra research and not as a money-making project.

299

00:25:25,720 --> 00:25:27,720

Not that I couldn't use the money.

300

00:25:27,720 --> 00:25:32,720

Appra was finally rolling, and somewhat anyway, on checking.

301

00:25:32,720 --> 00:25:37,720

I offered to take the material to Dr. Sanford in person this summer and talk it over with him,

302

00:25:37,720 --> 00:25:39,720

but he was too busy at the time.

303

00:25:39,720 --> 00:25:44,720

This would have been the longest trip I've ever made if he had said it was all right to come ahead.

304

00:25:44,720 --> 00:25:53,720

Dr. Greenwell has talked to Dr. Sanford over the phone and said that he thinks it's very promising.

305

00:25:53,720 --> 00:25:56,720

Dr. Sanford on the spot too.

306

00:25:56,720 --> 00:25:59,720

I'm afraid I bugged Appra quite a bit.

307

00:25:59,720 --> 00:26:02,720

Betty asked him about it too, to get it rolling.

308

00:26:02,720 --> 00:26:10,720

A copy minus the UFO data was left at Perkins, but I didn't think that any professional astronomer

would be interested in that part.

309

00:26:10,720 --> 00:26:12,720

But Dr. Mitchell was.

310

00:26:12,720 --> 00:26:17,720

He asked me down to explain the model, and I talked the UFO material over with him also.

311

00:26:17,720 --> 00:26:21,720

Although he's not a UFO buff, he listened.

312

00:26:21,720 --> 00:26:30,720

I half expected to get tossed out on my ear and gave me much help on my questions about the methods of solving problems, galactic coordinates.

313

00:26:30,720 --> 00:26:31,720

And so forth.

314

00:26:31,720 --> 00:26:34,720

Dr. Heineck worked at Perkins in the past.

315

00:26:34,720 --> 00:26:40,720

Now I don't know if he and Dr. Mitchell are acquainted, but he still probably has connections at Perkins.

316

00:26:40,720 --> 00:26:44,720

A technician with the last name of Heineck is at Perkins now.

317

00:26:44,720 --> 00:26:46,720

He might be a son or nephew.

318

00:26:46,720 --> 00:26:50,720

In any case, professional astronomy is a tight group.

319

00:26:50,720 --> 00:26:57,720

With most astronomers knowing each other, at least by reputation, I asked Dr. Mitchell to send a note to Dr. Heineck.

320

00:26:57,720 --> 00:27:01,720

His honest opinion of the accuracy of the model.

321

00:27:01,720 --> 00:27:04,720

I don't know if he'll do it, quite a bit to ask.

322

00:27:04,720 --> 00:27:08,720

But he wrote me saying that he did not find any errors.

323

00:27:08,720 --> 00:27:11,720

There probably are slight ones now, as the models had pretty rough treatment.

324

00:27:11,720 --> 00:27:17,720

It was out there in the July 4th tornado weather, and it was been taken apart three times, and the cats had been in it.

325

00:27:17,720 --> 00:27:23,720

It was knocked over once, and the strings maybe stretched a little bit on a few of them.

326

00:27:23,720 --> 00:27:30,720

It won't be enough to throw it off very much, but it should be a little from what it was when the pictures were taken.

327

00:27:30,720 --> 00:27:37,720

So trade, work, and visit other observatories that I'm hoping Heineck will either have to come to Ohio State on business,

328

00:27:37,720 --> 00:27:41,720

or to visit his relatives, or be intrigued.

329

00:27:41,720 --> 00:27:44,720

In any case, I hope he gets a chance to look at the model.

330

00:27:44,720 --> 00:27:48,720

Either Dr. Mitchell or I could explain that he's patterned to him.

331

00:27:48,720 --> 00:27:52,720

So there's still some hope in that quarter.

332

00:27:52,720 --> 00:27:58,720

An announcement through astronomical channels would make much more of an impact than any other way.

333

00:27:58,720 --> 00:28:03,720

I'm also hoping to chip away astronomically by sending the 65 light-year list of stars,

334

00:28:03,720 --> 00:28:10,720

most likely to have planets with life, to Sushu Huong, Stephen Dole, and possibly Carl Sagan.

335

00:28:10,720 --> 00:28:17,720

These men have all worked on the problem of extraterrestrial life from an unknown source.

336

00:28:17,720 --> 00:28:22,720

They've worked on the problem of extraterrestrial life from an astronomical or scientific angle.

337

00:28:22,720 --> 00:28:32,720

But as far as I know, no one has worked out the stars that far or broken them into groups based on probability, as my listing is done.

338

00:28:32,720 --> 00:28:35,720

These also have been checked and rechecked.

339

00:28:35,720 --> 00:28:40,720

Sagan presents a problem as oddly enough he's prejudice against UFOs.

340

00:28:40,720 --> 00:28:46,720

This may work our favor if he's reasonably fair, although I've heard he may not be.

341

00:28:46,720 --> 00:28:50,720

He may be mad enough to try to find flaws in the data and he can't and says so.

342

00:28:50,720 --> 00:28:57,720

His word as a respected scientist and as an opponent to UFOs will carry more weight.

343

00:28:57,720 --> 00:29:04,720

I found a few flaws in his work and that just might get him mad enough to want to find some in mine.

344

00:29:04,720 --> 00:29:10,720

Another way the model may get recognition is through the astronomical society of the Pacific.

345

00:29:10,720 --> 00:29:15,720

It is respected by astronomers all over the world and its data is used in their research papers.

346

00:29:15,720 --> 00:29:20,720

If they would publish the methods of making the model and the model is accepted as accurate,

347

00:29:20,720 --> 00:29:29,720

the later release of Betty's pattern would carry much more force with the astronomers and almost forced them to examine it.

348

00:29:29,720 --> 00:29:32,720

More things to be done yet.

349

00:29:32,720 --> 00:29:39,720

A few are to complete my revision of the 32 light-year catalog with more extensive footnotes and cross-referencing.

350

00:29:39,720 --> 00:29:43,720

And the additional stars found since 1957.

351

00:29:43,720 --> 00:30:01,720

Also I want to correct the data to the new list that Peter Bandekamp has just put out in the Astronomy Astronomical Society of the Pacific book in February.

352

00:30:01,720 --> 00:30:04,720

I have the older data. There isn't too much change.

353

00:30:04,720 --> 00:30:08,720

Just a part of a light-year on several of the stars and the two new stars.

354

00:30:08,720 --> 00:30:11,720

But I want it as up to date as possible.

355

00:30:11,720 --> 00:30:19,720

I want to extend the catalog of stars possible for life to 100 light-years, which means actually a complete revision.

356

00:30:19,720 --> 00:30:24,720

Then I want to make a model of these stars to 100 light-years.

357

00:30:24,720 --> 00:30:29,720

Two models of stars out to 65 light-years need to be made too.

358

00:30:29,720 --> 00:30:32,720

Now one of these would take in all the stars out this far.

359

00:30:32,720 --> 00:30:36,720

There are a thousand systems or very near a thousand systems.

360

00:30:36,720 --> 00:30:41,720

One of these models would just have the brighter stars because this could be done much quicker.

361

00:30:41,720 --> 00:30:46,720

And then I can check out Fiddy's background stars to see if we can place them exactly.

362

00:30:46,720 --> 00:30:52,720

This would give more proof that her pattern is correct.

363

00:30:52,720 --> 00:31:03,720

However, I don't really expect these background stars to be as correct as the stars with the lines to them because the ones with the lines to them were the ones that her attention was really drawn to.

364

00:31:03,720 --> 00:31:09,720

Because I will need cooperation from the astronomers and premature publicity could cut it off.

365

00:31:09,720 --> 00:31:12,720

I must ask great discretion.

366

00:31:12,720 --> 00:31:14,720

Most catalogs cannot be bought.

367

00:31:14,720 --> 00:31:16,720

They are sent to all the observatories.

368

00:31:16,720 --> 00:31:24,720

Professional astronomers get them, but the amateur has trouble and must prove his need and then hope and wait and wait and hope.

369

00:31:24,720 --> 00:31:27,720

It usually takes months to come.

370

00:31:27,720 --> 00:31:32,720

I was probably indiscreet in reporting it at all at the FSIC meeting.

371

00:31:32,720 --> 00:31:40,720

When I first asked to report my finding Class Spring, something I've never done before because I dislike public speaking,

372

00:31:40,720 --> 00:31:47,720

I was excited about the things I learned in Sagan's book and how they applied to the model and thought the groups would like to know.

373

00:31:47,720 --> 00:31:51,720

Betty's pattern had not been definitely placed at that time.

374

00:31:51,720 --> 00:31:59,720

But the FSIC is discreet and careful in their reports and would be very unlikely to broadcast it, at least I hope not.

375

00:31:59,720 --> 00:32:10,720

I'm especially hoping it will not get into the hands of Baker and Palmer, Moseley, Steger and John Keel.

376

00:32:10,720 --> 00:32:16,720

I've checked the claims of Keel on several points and found they were not what he said.

377

00:32:16,720 --> 00:32:20,720

I thought he was often mistaken, but at least sincere at first.

378

00:32:20,720 --> 00:32:23,720

Now I feel otherwise.

379

00:32:23,720 --> 00:32:30,720

I would like to get it in the hands of objective, critical researchers who like yourself to be improved, can act on it,

380

00:32:30,720 --> 00:32:35,720

but keep it confidential until the basic work is done and verified by APRA or others.

381

00:32:35,720 --> 00:32:42,720

My unsupported claims should not be accepted at face value. This worried me a bit about the FSIC meeting.

382

00:32:42,720 --> 00:32:49,720

I had quite a bit of technical data that I thought would be of interest to critical researchers in evaluating contactee reports

383

00:32:49,720 --> 00:32:54,720

and to give additional information on my research showing data limitations and so forth.

384

00:32:54,720 --> 00:32:59,720

I was going to show it after the meeting. It's the kind of proof I would have demanded.

385

00:32:59,720 --> 00:33:03,720

But Mr. Conduso did not think that anyone would be interested.

386

00:33:03,720 --> 00:33:07,720

We didn't have time for it anyway, but that not interested worried me.

387

00:33:07,720 --> 00:33:17,720

I do a great deal of reading in many different fields, correlating data that a person interested in just a few fields might not notice.

388

00:33:17,720 --> 00:33:24,720

I also had expected to find several possible groups like Betty's pattern out of 188 plus random systems.

389

00:33:24,720 --> 00:33:31,720

With all these dots you would expect to find several similar patterns and thought people would want to check it for themselves.

390

00:33:31,720 --> 00:33:35,720

There's only one that really fit, but this was unexpected.

391

00:33:35,720 --> 00:33:45,720

It should be made up of stars. Most likely to have planets with life is the strongest proof that Betty's map represents reality that we have.

392

00:33:45,720 --> 00:33:52,720

When I started this research I did it because it had not been done and I thought it should be checked, but I didn't really expect to find anything.

393

00:33:52,720 --> 00:33:56,720

Also I wanted to know what was out there.

394

00:33:56,720 --> 00:34:04,720

I had expected people to want to see and actually judge for themselves, hence the individual duplicated map.

395

00:34:04,720 --> 00:34:13,720

When I went into conflicting information I usually read both sides carefully, then rig up an experiment to test it, and then decide for myself which is the correct one.

396

00:34:13,720 --> 00:34:17,720

This is why your questions are most welcome.

397

00:34:17,720 --> 00:34:25,720

I wanted to let responsible people know so that if anything happened to me like a car accident, I have a long drive to work from back every day.

398

00:34:25,720 --> 00:34:27,720

The work would not be lost.

399

00:34:27,720 --> 00:34:31,720

Also it helps to vindicate Betty, who I greatly admire.

400

00:34:31,720 --> 00:34:42,720

A rather interesting point is the people I had expected to be most interested in finding out proof.

401

00:34:42,720 --> 00:34:52,720

The slowest to act and seem the least interested, while those that aren't even interested in the UFO field are the ones that have given me the most help.

402

00:34:52,720 --> 00:34:56,720

I am quite familiar with the Fate Magazine.

403

00:34:56,720 --> 00:35:01,720

I get it fairly often, especially when they have what looks like an interesting UFO article.

404

00:35:01,720 --> 00:35:06,720

I read a great deal in a UFO field, even though some of it is pretty far out.

405

00:35:06,720 --> 00:35:14,720

I read it so that I know how to comment to people that would talk on these articles that you know aren't true.

406

00:35:14,720 --> 00:35:17,720

You at least have some way of answering them when you've read it.

407

00:35:17,720 --> 00:35:21,720

I've written Flying Sauter Review trying to get Valley's address.

408

00:35:21,720 --> 00:35:31,720

I tried to reach him through his publishers and through Dr. Heineck, through forwarding mail at Northwestern University, and through Flying Sauter Review.

409

00:35:31,720 --> 00:35:36,720

Apparently he isn't interested and doesn't care to be reached at the present time.

410

00:35:36,720 --> 00:35:41,720

I found that surprising because he was very kind when I first was interested in the UFO field.

411

00:35:41,720 --> 00:35:48,720

It was because of him that I first got started in the field through reading Anatomy of a Phenomenon.

412

00:35:48,720 --> 00:35:54,720

Sincerely, Marge Fish speaking.

413

00:35:54,720 --> 00:36:02,720

Dear Richard, I have a few corrections and additions to the talk that we had last Sunday.

414

00:36:02,720 --> 00:36:14,720

The main correction is several times when I spoke of Reticulum 2 when we were talking about the map and the numbers that you had drawn on the map.

415

00:36:14,720 --> 00:36:26,720

I spoke of it being Reticulum 2 because I was looking at your number 2 and I meant Reticulum 1, which was your number 2.

416

00:36:26,720 --> 00:36:29,720

Sounds very confusing, I'm sure.

417

00:36:29,720 --> 00:36:38,720

But twice I said Reticulum 2 and I knew from the context of what I was talking about that I meant Reticulum 1.

418

00:36:38,720 --> 00:36:45,720

And I think it was because I was looking at your map, which must have had number 2 at the Reticulum 1 star.

419

00:36:45,720 --> 00:36:53,720

Another error was when I said that 107 Pisces was a G star.

420

00:36:53,720 --> 00:37:04,720

It is a K star, or ranges from K-O to I think K-2, depending on the source of the information.

421

00:37:04,720 --> 00:37:12,720

But actually, it is a bright star. It is in one of my Group 1 stars.

422

00:37:12,720 --> 00:37:16,720

Other than that, the speech stands pretty well.

423

00:37:16,720 --> 00:37:21,720

I've had some other answers, some of the letters, since I was spoken to you.

424

00:37:21,720 --> 00:37:29,720

And the most important one came from Mrs. Apoel, who is Dr. Heineck's assistant.

425

00:37:29,720 --> 00:37:45,720

She wrote to give me some more information when I sent in my last batch of papers there, giving me Sushehohung's address and another source for checking the spectroscopic binaries.

426

00:37:45,720 --> 00:37:49,720

Both of these should be quite useful.

427

00:37:49,720 --> 00:37:53,720

I was very, very happy to get the letter.

428

00:37:53,720 --> 00:38:01,720

Apparently they are reading at least some of the material that's coming in, which makes me feel much better.

429

00:38:01,720 --> 00:38:11,720

Sushehohung is, I would think about the World Authority on the planets that could have life and the stars that could have planets with life.

430

00:38:11,720 --> 00:38:23,720

Since he does much of the original research on this, and so if anyone could spot errors in my papers, he would be one of the best ones to do it if he will do it.

431

00:38:23,720 --> 00:38:32,720

I just looked up 107 Pisces and it is generally called a K-1 main sequence star.

432

00:38:32,720 --> 00:38:43,720

This is using the, I don't know exactly how to pronounce the name, a Haskeg, I think, catalog.

433

00:38:43,720 --> 00:38:55,720

Carlos J-A-S-C-H-E-K. He's the astronomer from La Plata Observatory in Argentina.

434

00:38:55,720 --> 00:39:05,720

Actually the observatory, Ostromico, de la Universidad Nacional de la Plata.

435

00:39:05,720 --> 00:39:24,720

I had a letter from him saying that he is sending my catalog and he hopes that we will meet this winter and talk over some of the projects like the model and possibly the negative parallax, which his catalog may help in solving.

436

00:39:24,720 --> 00:39:48,720

Actually if this theory is correct on negative parallax, it will be a combination of the first catalog and the Eglise catalog that should be able to solve the problem by taking the odd stars in the Eglise catalog and checking them out through this catalog in the Morgan-Canaean system.

437

00:39:49,720 --> 00:39:55,720

We should be able to spot which of these look like regular main sequence stars but are subluminous.

438

00:39:55,720 --> 00:40:06,720

So this may be a productive field, Chris isn't too early to tell because the correlation has not been done yet, but it should let us know when we are the other.

439

00:40:06,720 --> 00:40:15,720

I did not give a very good chronological listing in our talk last Sunday, so I'd like to go over that right now.

440

00:40:15,720 --> 00:40:28,720

I believe I read Interrupted Journey in the summer of 1966, as I said I wasn't too much interested in UFOs at that time and I didn't give too much credit to the story at the time either.

441

00:40:28,720 --> 00:40:43,720

One in November of that year I read Anatomy of a Phenomenon and this got me very interested and after that I joined April and the FSIC at the same time, very nearly the same time.

442

00:40:43,720 --> 00:41:02,720

I wrote Dr. Valley the following May and at this time I was already thinking about Betty's map and had gone over the story somewhat because I had asked him at this time if there were any maps that were done from a point of view outside of our solar system.

443

00:41:02,720 --> 00:41:15,720

And this was asked to check out Betty's map. I actually didn't expect there had been any done, but

I thought it would be worthwhile checking to know whether to make my own maps or not.

444

00:41:15,720 --> 00:41:18,720

And he replied in the negative.

445

00:41:18,720 --> 00:41:34,720

So it was the summer, spring and summer of 1967 when I first started to try to get the data and didn't have any luck. Actually it was the summer of 68 before I was able to get the star catalog.

446

00:41:34,720 --> 00:41:56,720

So there was a lot of year and a half that I was looking for the material. During this year and a half I did a lot of reading on astronomy and I read Sagan's Intelligent Life and the Universe and Fairchild's Vice Beyond the Earth which I had read a couple of times.

447

00:41:56,720 --> 00:42:19,720

And I wish to read again and it has quite a bit of very detailed material in it. I also did the research on hypnosis and the experimentation on hypnosis and thought transference and so forth that I wrote about in my letter to Dr. Sprinkle.

448

00:42:19,720 --> 00:42:34,720

This course was not very definite. The information on hypnosis is very contradictory and I found that with myself I could do only certain things with certain other people. It worked very well.

449

00:42:34,720 --> 00:42:44,720

In many respects it does not work with me and I didn't know how good a subject Betty was or what circumstances it was done and so forth.

450

00:42:44,720 --> 00:43:13,720

So it was rather inconclusive. In the thought transference experiments they were higher than just guessing. In fact thought transference between certain pairs of people was quite high and there was no chance of signaling or having it hoaxed because I was one of the participants in one of these sets of thought transferences.

451

00:43:14,720 --> 00:43:26,720

And I know that I wasn't even looking at the other person but I was receiving quite well. This was using the ESP cards. I don't send well however.

452

00:43:27,720 --> 00:43:38,720

But in the other kind of ESP phenomena such as prediction, moving objects and so forth it was strictly at chance level.

453

00:43:38,720 --> 00:43:53,720

It was during this period too that the many trips to Toledo were made to get the material for the 16 light year model and the model was done with inconclusive results.

454

00:43:54,720 --> 00:44:07,720

In the spring of 1968 Connie made her 16 light year model in a cute format with the weather screening or a fire hardware cloth at the top and bottom.

455

00:44:08,720 --> 00:44:19,720

And I liked her idea but again I was more interested in getting complete access rather than having it blocked in.

456

00:44:20,720 --> 00:44:31,720

Then in the summer of 1968 I found a source for the plastic, the queer plastic that I had been hoping to use for the model and for several other projects I had in mind.

457

00:44:32,720 --> 00:44:41,720

And I had it ordered. It took three months to come but at least it was on its way and starting to come at this time.

458

00:44:42,720 --> 00:44:50,720

Also in the summer of 1968 I got into Perkins and got a crack at those star catalogs.

459

00:44:51,720 --> 00:45:01,720

Now I didn't have any of the catalogs on my own until quite late in 1968 so all my data had to be copied out of the catalogs at Perkins.

460

00:45:02,720 --> 00:45:06,720

But I found the address for the Great Star catalog and I ordered that.

461

00:45:07,720 --> 00:45:11,720

If Jerry takes months for a star catalog to come and this was no exception.

462

00:45:12,720 --> 00:45:22,720

Connie Louie and my niece had suggested the protractor instead of the ball system that I was using and the idea was an excellent one.

463

00:45:23,720 --> 00:45:32,720

So I expanded the protractor idea to make it even more convenient and worked on the methods of putting the model together.

464

00:45:33,720 --> 00:45:42,720

Then in the Christmas vacation of 1968 the model was finally constructed which took most of the Christmas vacation.

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00:45:44,720 --> 00:45:59,720

After Christmas in February and March I started to combine the data that I had in a readable form so that I could send the material into Appro and the fine software investigating committee in Akron.

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00:45:59,720 --> 00:46:06,720

The first thing then was the star catalog since it is absolutely necessary to understand which stars are which.

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00:46:07,720 --> 00:46:23,720

After that the page of abbreviations was done so that people could understand the star catalog and also a brief idea of the number of bead sizes and colors and so forth so that understanding the model would be easier.

468

00:46:24,720 --> 00:46:37,720

Some other teachers who were following my work suggested putting in a history of the model so I did a couple pages of that and then I thought I'd better put in a rationale of what I thought that he's not could mean.

469

00:46:38,720 --> 00:46:45,720

And this would explain the various news of investigating various possibilities within the model.

470

00:46:46,720 --> 00:46:54,720

Then I put in some of the early worksheets that I had done to show the weaknesses and strengths of various interpretations.

471

00:46:55,720 --> 00:47:02,720

And the problems with any of these because at this time I had not found the correct one although I was on the right track.

472

00:47:03,720 --> 00:47:08,720

I had reached the conclusion that there were many stars that could have plans with life.

473

00:47:08,720 --> 00:47:17,720

At this time I thought there was around 20. Some of these have been trimmed off since then because I discovered some of these were unresolved binaries or

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00:47:18,720 --> 00:47:26,720

or just got the binaries and were no longer suitable. Some of these were also marked as possible variables in the right star catalog.

475

00:47:27,720 --> 00:47:36,720

And I'm always hoping for life. So I was hoping that these variables were not true variables or that it was just regular solar fairing like the sun.

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00:47:36,720 --> 00:47:41,720

However I doubt if regular solar fairing could be seen. I've been trying to find out for sure.

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00:47:42,720 --> 00:47:49,720

But I don't think that the two percent change in light could be seen at the distance that some of these stars are.

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00:47:50,720 --> 00:47:59,720

So I don't think it's regular solar fairing. Now solar fairing in a smaller star like a red dwarf changes its luminosity very very much.

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00:48:00,720 --> 00:48:05,720

Several magnitudes impact. But in one like the sun it does not change greatly.

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00:48:06,720 --> 00:48:20,720

So I think the variability may be more than I had first hoped. Also after checking the Laplada catalog they range these stars in a five or six point spread quite often

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00:48:21,720 --> 00:48:25,720

which means that different viewers are seeing them quite differently at different places.

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00:48:26,720 --> 00:48:31,720

A normal range is around two or three points within a spectrum range.

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00:48:32,720 --> 00:48:40,720

So this would show that they probably are truly variable and so not suitable for life or at least not nearly as likely.

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00:48:41,720 --> 00:48:51,720

So now the range is the 13 within 32 light years plus these two that are just beyond this range that was coded in the last tape.

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00:48:52,720 --> 00:49:06,720

Time I also did most of the correlation the correlation by luminosity by components the HR diagram because I couldn't find the actual spread of the HR diagram.

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00:49:07,720 --> 00:49:20,720

I decided to make my own using all the components within the 32 light years so I could spot where the break off point was as far as luminosity where the K O and the K 1 break off.

487

00:49:21,720 --> 00:49:26,720

I didn't give the absolute magnitude at this point and I haven't been able to get Doral's book.

488

00:49:27,720 --> 00:49:33,720

I have his book now but I haven't had a chance to read it. It just came in about a month ago and I've been very busy with the data.

489

00:49:34,720 --> 00:49:43,720

I haven't had a chance for any extra reading so I've been standing by my HR diagram on this point but I may need some revision once this has been checked out also.

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00:49:44,720 --> 00:49:55,720

In March I sent the data to Dr. Heineck first because I thought he would be interested since he is interested in UFOs and he has the knowledge to understand the astronomy part.

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00:49:56,720 --> 00:50:05,720

And secondly I wanted to get Dr. Valley's address and Dr. Valley had been an associate of Dr. Heineck at Northwestern and then I had heard that he had gone back to France.

492

00:50:06,720 --> 00:50:14,720

And then I had heard that he is back in the country again but not at Northwestern so I was trying to reach him because I wanted him to have a copy.

493

00:50:15,720 --> 00:50:27,720

Also I had a lot of astronomy questions that I could not find in the books. I'm learning my astronomy as I'm working with the data so I have a lot of learning to do.

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00:50:27,720 --> 00:50:40,720

There are still a few columns even now that I don't know exactly how to use in problems. I know pretty well what they stand for but not exactly how they are used.

495

00:50:41,720 --> 00:50:46,720

But at this time there's quite a bit I didn't know because I'd only had the data for about eight or nine months.

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00:50:47,720 --> 00:51:02,720

One of the things that I really flipped up on this point was the SB notations I had carefully copied out of the Bright Star catalog and then didn't realize that they were the, it stood for the spectroscopic binaries which I was trying desperately to find.

497

00:51:03,720 --> 00:51:08,720

I discovered this soon afterwards but I'm still rather embarrassed that I hadn't caught it at that time.

498

00:51:09,720 --> 00:51:23,720

I did not have my own copy of the Gleasy catalog so I could not check the footnote through the Gleasy and I did not have time to check the footnote through the Yale Trigometric catalog at this time because I didn't have my own copy and I didn't have time in Perkins to do it.

499

00:51:24,720 --> 00:51:32,720

During the winter months my teaching hours coincide with the Perkins Library hours so I have no way of getting into the Perkins Library.

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00:51:32,720 --> 00:51:55,720

Besides I wasn't quite sure at this point you do but I'd be welcome back since the unauthorized personnel are not supposed to be using the library for a very good reason because they are in the middle of research and it would be very disruptive to have people coming in and out all the time and asking questions and these catalogs are very hard to come by.

501

00:51:56,720 --> 00:52:06,720

Another reason for contacting Dr. Heineck was the hope that he could catch any mistakes before I sent the report in to April.

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00:52:07,720 --> 00:52:24,720

I was pretty excited about some of the things I was finding about the stars that could have plants with life since this is all new material to me when I was reading a Dr. Sagan's book and the correlation with the model itself and finding which ones actually were the ones that could support it.

503

00:52:25,720 --> 00:52:36,720

I was very excited about the plants with life within the model so I contacted the FSIC to see if they would want me to explain what I'd found to the group.

504

00:52:37,720 --> 00:52:54,720

This is the first time, only time I have ever volunteered to speak before a group because it does bother me to do so normally but I thought they would be interested and since it is a small well net group I could probably get through it all right.

505

00:52:55,720 --> 00:52:58,720

Well it seemed a very long time before I got any answers.

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00:52:59,720 --> 00:53:09,720

Mrs. Apo who is right under Dr. Heineck as assistant at Durburin wrote a very nice letter answering some of my questions.

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00:53:10,720 --> 00:53:23,720

I had not made myself clear on one point I was very worried about a minus in terms of some of the parallaxes in the bright star catalog because at this time I thought that his map was 2D

508

00:53:23,720 --> 00:53:43,720

and that they would have to use some sort of projection to make a map possibly something like the northern projection to eliminate the distortion of putting a 3D celestial sphere into a 2D map.

509

00:53:43,720 --> 00:54:12,720

I was planning at this time of making a model of all the bright stars within possibly 800 light years, possibly 1000 light years and then measuring off at taking the actual angle of elevation and the actual turn to make my own northern type map from the various stars that could have plants with life so we could see what their sky maps would actually look like.

510

00:54:13,720 --> 00:54:24,720

This would be quite an undertaking I expected it to take four or five years probably and it would be a rather tedious but it would give us what their skies looked like.

511

00:54:25,720 --> 00:54:44,720

However this minus in front of the parallax was a factor I couldn't account for and I thought it might change all the measurements I had taken so far in my model and all the objective measures

that I had in the model that I was planning to do with these bright stars.

512

00:54:45,720 --> 00:54:59,720

This was not the normal plus minus that you have after parallax that shows the margin of error that is likely for that parallax. I just simply couldn't account for it but it worried me quite badly.

513

00:55:00,720 --> 00:55:23,720

I found the answer to this one later when I got to the Perkins Observatory on June 6th. Dr. Nann kindly explained it to me that it was the apparent backward movement of the star and that it could be caused by the comparison stars actually moving more than the stars being measured.

514

00:55:24,720 --> 00:55:33,720

This raised my curiosity about negative parallax and made me much more receptive to anything I read on negative parallax.

515

00:55:34,720 --> 00:55:42,720

So I was very interested when I came across Vasyl Vesky's article on parallax and the problems of parallax.

516

00:55:42,720 --> 00:55:54,720

His article was the first that I realized that there were so many problems involved was taking a parallax measurement. It was quite an eye-opener and very, very interesting.

517

00:55:55,720 --> 00:56:11,720

The exact title of the article is the accuracy of trigimetric parallaxes of stars by S. Vasyl Vesky. It is from the Lick Observatory, molten number 206.

518

00:56:12,720 --> 00:56:19,720

And it is a survey of the literature of this review was conducted in December 1965.

519

00:56:20,720 --> 00:56:31,720

I read the article in the Astronomy and Astrophysics Yearbook, 1966 I believe.

520

00:56:31,720 --> 00:56:43,720

Because of the present inaccuracy of the trigimetric parallax beyond 100 light years, I have completely given up the idea of this 800 to 1000 light-year model.

521

00:56:44,720 --> 00:56:54,720

Mrs. Apo had answered my questions on what the Roman numerals after the inspector meant, which was very helpful.

522

00:56:54,720 --> 00:57:07,720

This is the M.K. system, Morgan-Conan system, and is based on the strength of some of the lines in the front hopper lines in the spectrum.

523

00:57:07,720 --> 00:57:25,720

And breaks the stars up into groupings of main sequence subgiants. The main sequence are five subgiants, four going on into three to one of the large giants.

524

00:57:25,720 --> 00:57:29,720

The Roman numeral six is your sub-dorus and so forth.

525

00:57:30,720 --> 00:57:41,720

This was extremely helpful. I had already worked out a system of my own using the H.I. diagram and their actual luminosity.

526

00:57:42,720 --> 00:57:48,720

And this coincided very nicely with the M.K. system.

527

00:57:49,720 --> 00:57:58,720

And this eliminated some of the stars that I thought were likely to have life because these some of these were subgiants rather than main sequence stars.

528

00:57:59,720 --> 00:58:01,720

I was very grateful for this help.

529

00:58:02,720 --> 00:58:16,720

To say this was sent in March. Between March and June, I had tried to work out some way of showing these subgroupings that were based on luminosity that I had found.

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00:58:16,720 --> 00:58:27,720

In fact, that many of these stars are pumped together or in sheets of similar type magnitudes. And these grade off into each other.

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00:58:27,720 --> 00:58:32,720

There was some mixing, but there were much more groups than I had expected.

532

00:58:33,720 --> 00:58:36,720

I did some other correlation at this time also.

533

00:58:37,720 --> 00:58:46,720

Then on June 6, well actually June 6th, I went down to Perkins, but it was too late to get in because we had, this was the last day of school.

534

00:58:46,720 --> 00:58:48,720

So finishing up the records and so forth.

535

00:58:49,720 --> 00:58:57,720

So I camped overnight at the Delaware camp and then went over to the observatory on the 6th.

536

00:58:58,720 --> 00:59:06,720

And Carol let me duplicate the basic catalog, which was a tremendous help. It is written in German.

537

00:59:07,720 --> 00:59:13,720

And unfortunately I don't read German, but the columns are similar to the columns of other catalogs.

538

00:59:14,720 --> 00:59:19,720

And the footnotes are in astronomical terms, so they are not difficult to follow.

539

00:59:20,720 --> 00:59:25,720

Some of the writing at the beginning of the catalog, I haven't been able to follow through yet.

540

00:59:26,720 --> 00:59:28,720

I'm hoping to get a translation one of these days.

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00:59:29,720 --> 00:59:37,720

I was very worried about getting in. I wanted to use the data so badly and I was so afraid that I wouldn't be allowed in.

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00:59:38,720 --> 00:59:49,720

But I had a rather royal welcome. Carol was glad to see me and introduced me to the other members of the staff and showed me around the place.

543

00:59:50,720 --> 00:59:51,720

I was so happy.

544

00:59:52,720 --> 01:00:00,720

Dr. Canan at this time also looked up at the Epsilon-Era Danny to me, which is marked as a spectroscopic binary in the footnotes of the Bright Star catalog.

545

01:00:00,720 --> 01:00:09,720

I knew it was one of the stars studied in the Project Osma and I was surprised that they would study it if there was a spectroscopic binary because they said it was a single.

546

01:00:10,720 --> 01:00:16,720

And it turned out to be an error in the Bright Star catalog, which is extremely easy to do.

547

01:00:17,720 --> 01:00:27,720

I'm still catching some of my own errors. Your copying column after column of numbers is very easy to get in the wrong column or transpose numbers or other copy errors.

548

01:00:28,720 --> 01:00:33,720

And he found this in the Baton catalog, which was just issued.

549

01:00:34,720 --> 01:00:38,720

So this was my first contact with the spectroscopic binary catalog.

550

01:00:40,720 --> 01:00:45,720

I wasn't able to find it in subsequent visits to Perkins because it was in use.

551

01:00:46,720 --> 01:00:51,720

So I wrote to Ellen Baton later to see if I could get my own copy, which he very kindly sent.

552

01:00:52,720 --> 01:01:00,720

The evening of June 6 was my first trip to Akron to the FSIC meeting.

553

01:01:01,720 --> 01:01:06,720

Using the directions that Mr. Conduso gave me, I had no trouble at all in finding the place.

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01:01:07,720 --> 01:01:10,720

So the 6th was a very eventful day.

555

01:01:11,720 --> 01:01:14,720

After I got home, I started correlating the data.

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01:01:14,720 --> 01:01:24,720

And at this time, within just a few days, I just sent Apple their copy of the data I had at present.

557

01:01:25,720 --> 01:01:34,720

And I'd written that this would probably be the last that I would send until I had the 65-lightyear model that I didn't think that it could be pinned down exactly.

558

01:01:35,720 --> 01:01:41,720

In two days after this, I discovered the correct viewing angle and everything started to fit into place very neatly.

559

01:01:42,720 --> 01:01:55,720

I still was considering Delta and Gamma, Pavel as the two end stars on the exploration end stars, the lower ones.

560

01:01:56,720 --> 01:02:01,720

But I wasn't very happy with these. I hadn't been all along because they are provable variables.

561

01:02:02,720 --> 01:02:23,720

I learned too that one of these is a group 4 star, or usually classes that although sometimes as a 5, which means that it is, this is the MK group 4 and 5, the 5 being main sequence, but 4 being sub-giant, which would put it as rather unlikely for life.

562

01:02:24,720 --> 01:02:41,720

So I thought that possibly at this time, if I could make a model of the stars in this area, since all the other stars fit in so beautifully, that these two should fit in beautifully too if I could find the stars just outside the 32-lightyear range that could be gone to instead of these.

563

01:02:42,720 --> 01:02:48,720

Which would mean taking in the two next closest stars that would be gone to from Zeta to Cana.

564

01:02:49,720 --> 01:02:52,720

So I made a model of this area of the sky.

565

01:02:53,720 --> 01:03:09,720

However, these stars were not where I was expecting them to be. The angle was sharply back and the

lines appeared much shorter than should have been following Betty's map unless she is making long lines because these jumps are very long. We just appear to be short.

566

01:03:10,720 --> 01:03:16,720

In the meantime, I was spending the whole summer waiting for letters to return to know what to do next.

567

01:03:17,720 --> 01:03:27,720

I had written Dr. Stanford that I would come to Minnesota to take the material to him. I wasn't getting any replies at all from Apple, which worried me quite badly.

568

01:03:28,720 --> 01:03:30,720

I was rather afraid there might have been tampering.

569

01:03:31,720 --> 01:03:35,720

And also I was afraid that either that or they weren't taking it seriously.

570

01:03:36,720 --> 01:03:47,720

And then I was wondering if Betty would write and if it was because Apple delayed sending a letter to her so I didn't get her reply from her for quite a while.

571

01:03:48,720 --> 01:03:59,720

And I didn't want to go ahead and make other plans until I had heard to know whether I was going to Minnesota or Illinois or Dr. Stanford was vacationing or going to New Hampshire to see Betty or what I was going to be doing.

572

01:03:59,720 --> 01:04:12,720

So it was a day to day basis. But in the meantime, I was correlating the data all day every day trying to get things worked out, re-photographed, checked through as thoroughly as possible.

573

01:04:13,720 --> 01:04:21,720

Finally, letters came through from Dr. Stanford saying not to come to mail the data. And the letter came through from Betty.

574

01:04:22,720 --> 01:04:29,720

And so we were finally in correspondence and she said it was fine to come and so I went then to New Hampshire.

575

01:04:30,720 --> 01:04:37,720

Right before going to New Hampshire, Carol had written me that Dr. Mitchell Perkins had read my data.

576

01:04:38,720 --> 01:04:47,720

I was quite surprised that anyone down there would since I am just an amateur and had left the data but had not expected anyone to read it.

577

01:04:47,720 --> 01:05:03,720

I had not included the flying saucer data since I didn't want the strictly astronomical data thrown out just because someone was not in agreement on the flying saucer material since it is rather controversial.

578

01:05:04,720 --> 01:05:19,720

Dr. Mitchell wanted to see me talk over the coordinates and so forth. I was of course very delighted to go because he is a very understanding, interesting person.

579

01:05:20,720 --> 01:05:39,720

And so the day before I was ready to leave for New Hampshire, I went down to Perkins and we went over the model and he answered some of my questions and posed some problems and got me thinking too and new lines of thought.

580

01:05:40,720 --> 01:05:55,720

And I think it was very worthwhile for both of us, at least it was for me. He was mildly interested in the UFOs so I rather invented zero on the data that I had there and he made suggestions for worthwhile too in this area.

581

01:05:56,720 --> 01:06:12,720

On the way home I stopped in at Bargain Fair Mr. Wiggs and picked up the colored pictures that I had done of the model and then put those together on the stereo slides which takes a lot of matching.

582

01:06:13,720 --> 01:06:22,720

And sent a copy back to Perkins because I had to make several sets, one I had intended for Perkins and one for Dr. Valley.

583

01:06:22,720 --> 01:06:32,720

If you ever write to one, one I wanted to send to Gleesie and one to Peter Vandekamp. Of course one is sent into ASO.

584

01:06:33,720 --> 01:06:48,720

Since Gleesie and Dr. Vandekamp are the two working that I know of anyway that are working mostly on these near stars and they would be the ones that would be probably most interested in seeing the model.

585

01:06:48,720 --> 01:06:51,720

Betty has a copy also.

586

01:06:51,720 --> 01:07:07,720

I went to the stereo optican slides to show the model in depth. I had originally in April to during period tried to do pictures in 3D using the two color photo system.

587

01:07:08,720 --> 01:07:21,720

But it's quite difficult to do. I managed to do a couple. But I found that quite a few people have difficulty adjusting their eyes to the two colors and some it makes ill.

588

01:07:21,720 --> 01:07:32,720

And there's a great deal of trouble getting filters that were pure enough and then getting a mimeograph sheet that was pure enough to make the colors work.

589

01:07:33,720 --> 01:07:44,720

So I gave up this idea since the colored stereo optican shows it much better. You can get a better idea of the actual colors of these stars and sizes and so forth.

590

01:07:44,720 --> 01:07:50,720

Far simpler, the only problem is to get stereo opticans to view them with.

591

01:07:50,720 --> 01:08:07,720

Anyway, on the fourth and fifth of August, I saw Betty and then saw the pictures that David Baker had drawn and started home on the way home and the few weeks before school started.

592

01:08:07,720 --> 01:08:11,720

I was correlating the data then that I got from Betty.

593

01:08:11,720 --> 01:08:21,720

I sent in the summary sheet and to April but waited until I got that he's OK before I sent in the balance of our interview.

594

01:08:21,720 --> 01:08:30,720

Make sure that I had not misinterpreted anything that she had said and that she agreed that this was an accurate account of what our interview consisted of.

595

01:08:30,720 --> 01:08:37,720

Since the tape recorder wasn't working properly, rather, I probably wasn't working the tape recorder properly.

596

01:08:37,720 --> 01:08:40,720

Just blame it on the tape recorder, of course.

597

01:08:40,720 --> 01:08:49,720

Mr. Conduso had set up October the third as my speech for the SSIC meeting.

598

01:08:49,720 --> 01:08:52,720

So I was busy working on slides and pictures for this.

599

01:08:52,720 --> 01:08:54,720

So I re-photographed the model.

600

01:08:54,720 --> 01:09:01,720

The original photographs, the colored stereo optican pictures were taken before I had found Betty's angle.

601

01:09:01,720 --> 01:09:04,720

Luckily, one of them shows it fairly well.

602

01:09:04,720 --> 01:09:11,720

But this was just coincidence and the angle is much higher on this picture than the actual view angle is.

603

01:09:11,720 --> 01:09:18,720

Actually, I can't photograph it from Betty's exact viewing position because it hits the frame.

604

01:09:18,720 --> 01:09:29,720

It's quite low and hits the frame in two places and so does not show the correlation in the best possible way.

605

01:09:29,720 --> 01:09:38,720

2D pictures are very hard to interpret because you can't tell which is a small k-star close or a large k-star in the background

606

01:09:38,720 --> 01:09:43,720

since they both would have about the same diameter on the slide.

607

01:09:43,720 --> 01:09:48,720

I had at this time also to completely repaint the model.

608

01:09:48,720 --> 01:09:54,720

It was out in the July 4th tornado that touched down just a few miles away from us.

609

01:09:54,720 --> 01:09:56,720

Of course, we had high winds and high rain.

610

01:09:56,720 --> 01:09:59,720

The model had been knocked over several times.

611

01:09:59,720 --> 01:10:01,720

The cats had gotten into it.

612

01:10:01,720 --> 01:10:11,720

So I had to recheck most of the stars' positions and repaint all of the stars before I could take

it into the meeting.

613

01:10:11,720 --> 01:10:17,720

I wanted to take it to Prickens the following day so it could be used there as I want the data used.

614

01:10:17,720 --> 01:10:23,720

Because I had wanted as little walkie just possible for photographing and for viewing the model,

615

01:10:23,720 --> 01:10:29,720

I had used a very thin, delicate wood for the original frame.

616

01:10:29,720 --> 01:10:32,720

This had not weathered very well too long.

617

01:10:32,720 --> 01:10:37,720

So the frame itself had to be completely remade before I could move it.

618

01:10:37,720 --> 01:10:42,720

The plastic on the bottom was breaking because the frame was not supporting it.

619

01:10:42,720 --> 01:10:46,720

I was afraid that the model would not hold up.

620

01:10:46,720 --> 01:10:57,720

Thanksgiving vacation, the year before, I had made a quick, very small mock-up of the brighter stars in the 32 light-year range

621

01:10:57,720 --> 01:11:00,720

to see if I could find a pattern using them.

622

01:11:00,720 --> 01:11:06,720

Because I couldn't wait till Christmas, I knew it would take the whole Christmas vacation to do the full model.

623

01:11:06,720 --> 01:11:12,720

On this small model, I had taken to Betty, but the plastic, even though it was cushioned the whole way,

624

01:11:12,720 --> 01:11:16,720

had not held up and the model had broken before I had gotten to Betty.

625

01:11:16,720 --> 01:11:23,720

So I was quite worried that this model would not last the trip going down to Akron and then down to Prickens.

626

01:11:23,720 --> 01:11:28,720

It did, I think, and I thought I wasn't at all sure that it would.

627

01:11:28,720 --> 01:11:32,720

The meeting at Akron went over quite well.

628

01:11:32,720 --> 01:11:42,720

I was very happy, nervous as I was, and the following trip to Prickens was not on a vent hole,

629

01:11:42,720 --> 01:11:45,720

but the model did get down there safely.

630

01:11:45,720 --> 01:11:51,720

In September, I finally heard from APRO that they thought they were getting me all the data.

631

01:11:51,720 --> 01:11:57,720

I have not heard from Dr. Stanford since mid-July, I believe,

632

01:11:57,720 --> 01:12:01,720

but I have heard indirectly through the APRO headquarters.

633

01:12:01,720 --> 01:12:05,720

He thinks it's quite promising.

634

01:12:05,720 --> 01:12:08,720

Betty and I have been corresponding quite regularly.

635

01:12:08,720 --> 01:12:12,720

She is a warm, interesting person with a quesiton of humor.

636

01:12:12,720 --> 01:12:18,720

This week, I got a letter from SSIC, which was very nice,

637

01:12:18,720 --> 01:12:26,720

where the members had signed a thank you letter for my talk on October 3rd.

638

01:12:26,720 --> 01:12:29,720

Now for a correction to a correction.

639

01:12:29,720 --> 01:12:41,720

The La Plata Observatory is actually titled Observatorio Stronomico de la Universidad Nacional de la Plata.

640

01:12:41,720 --> 01:12:47,720

I noticed in this thing over to the first part of this tape that I had not pronounced it correctly.

641

01:12:47,720 --> 01:12:52,720

Another major correction in my written material, and I don't know how this happened,

642

01:12:52,720 --> 01:12:58,720

but on the summary sheet, my catalog number A, I think of it in terms of my catalog number,

643

01:12:58,720 --> 01:13:04,720

or catalog designation, rather than the right star number, and the right star number is 483,

644

01:13:04,720 --> 01:13:08,720

which I quoted correctly on the tape last Sunday.

645

01:13:08,720 --> 01:13:13,720

But in my summary sheet, I have it marked so that the 8 looks like a 5,

646

01:13:13,720 --> 01:13:20,720

and it's probable that I also copied it off the summary sheet on other material as a 5 instead of an 8.

647

01:13:20,720 --> 01:13:25,720

So the correct designation is 483 there instead of 453.

648

01:13:25,720 --> 01:13:27,720

Thanks again for everything.

649

01:13:27,720 --> 01:13:29,720

Sincerely, Marge Fish.

650

01:13:29,720 --> 01:13:35,720

This is Margery Fish, and it is December 28, 1969.

651

01:13:35,720 --> 01:13:39,720

Dear Richard, thank you very much for your Christmas card.

652

01:13:39,720 --> 01:13:45,720

I had hoped to get this tape out to you with my greetings to you before Christmas, but time ran out on me.

653

01:13:46,720 --> 01:13:53,720

The sheet, I don't know if it was discussed at the FSI meeting the last one,

654

01:13:53,720 --> 01:13:57,720

but I sent a correction sheet, and I'm going to send you one,

655

01:13:57,720 --> 01:14:01,720

but I want to double check and have more of the information ready when I send it to you

656

01:14:01,720 --> 01:14:05,720

since you are able to use it more than most of the others.

657

01:14:05,720 --> 01:14:11,720

The Gleasy catalog came in, and there were a great many more changes than I was expecting.

658

01:14:11,720 --> 01:14:16,720

Now as far as the 32 Lightyear model is concerned, there were some minor changes.

659

01:14:16,720 --> 01:14:21,720

Again, not enough to affect the visual view of the model.

660

01:14:21,720 --> 01:14:29,720

However, in the hill pattern, those two that were on the end that I thought were long lines

661

01:14:29,720 --> 01:14:34,720

but didn't appear along in the photograph because they were dipped way back.

662

01:14:34,720 --> 01:14:40,720

These two stars have drastic changes in their parallax in the Gleasy catalog.

663

01:14:40,720 --> 01:14:51,720

Both of these, I believe, are out, or at least, well, 688 may still be in, but 755 is out.

664

01:14:51,720 --> 01:14:56,720

Now some other stars have been discovered in this area,

665

01:14:56,720 --> 01:15:00,720

and the parallax measurements taken now that weren't taken before,

666

01:15:00,720 --> 01:15:03,720

and some of these may be the correct ones,

667

01:15:03,720 --> 01:15:12,720

in which case I think probably 773.5 would be the top point,

668

01:15:12,720 --> 01:15:16,720

and 796 may be the bottom point.

669

01:15:16,720 --> 01:15:22,720

The 796 line would be very similar to Betty's line, a long line going out.

670

01:15:22,720 --> 01:15:27,720

773.5 still dips back considerably.

671

01:15:27,720 --> 01:15:34,720

These would be about 30 Lightyears or 31 Lightyears from Zeta to Canna,

672

01:15:34,720 --> 01:15:38,720

the jump off point from Zeta 1 reticulum.

673

01:15:38,720 --> 01:15:44,720

The parallax on Zeta 1 and 2 reticulum has been changed.

674

01:15:44,720 --> 01:15:50,720

It's not as far out as the Yale trigonometric parallax supplement had it,

675

01:15:50,720 --> 01:15:54,720

but it's not still quite as close as what the BrightStar catalog had it.

676

01:15:54,720 --> 01:15:57,720

They are both put out at the same parallax this time,

677

01:15:57,720 --> 01:16:05,720

and they are both about 36 Lightyears away from Earth if this last parallax measurement is correct.

678

01:16:05,720 --> 01:16:08,720

This does not disrupt the pattern in any way.

679

01:16:08,720 --> 01:16:12,720

In fact, it makes it better than what the Yale trigonometric supplement had it.

680

01:16:12,720 --> 01:16:18,720

Some other minor corrections are my catalog A-star,

681

01:16:18,720 --> 01:16:25,720

which is the top star in the Hill pattern, is a BrightStar catalog number 483.

682

01:16:25,720 --> 01:16:28,720

On my summary sheet, it looks like 453.

683

01:16:28,720 --> 01:16:35,720

Either I copied it incorrectly or in state making one copy from another copy from another copy, as I often do.

684

01:16:35,720 --> 01:16:42,720

It copied incorrectly. Sometimes you get a blurring in the printing.

685

01:16:42,720 --> 01:16:47,720

Then I may have copied it wrong off of one of these copies onto some other material.

686

01:16:47,720 --> 01:16:53,720

So in any case, if you'd want to check through your material, it should be 483, not 453.

687

01:16:53,720 --> 01:17:03,720

You put the BrightStar catalog number on the last star in the V shape at the top of the Betty's pattern.

688

01:17:03,720 --> 01:17:12,720

Now in these new stars, some of these parallaxes are not trigonometric parallaxes.

689

01:17:12,720 --> 01:17:18,720

One is just a single spectroscopic parallax.

690

01:17:18,720 --> 01:17:23,720

I dislike placing too much reliance on a single parallax measurement,

691

01:17:23,720 --> 01:17:28,720

especially when it is a spectroscopic rather than a trigonometric parallax.

692

01:17:28,720 --> 01:17:31,720

This is all we have to go by, so this is what I have to use.

693

01:17:31,720 --> 01:17:43,720

Another correction is I had said that only about a fourth of the area around the base stars was on the map.

694

01:17:43,720 --> 01:17:48,720

Actually, it is an eighth. There isn't anything over in the other fourth at the top.

695

01:17:48,720 --> 01:17:53,720

This is why I said it was a fourth, but if we want to get it down to real brass hacks there,

696

01:17:53,720 --> 01:18:01,720

it is only an eighth of the area around the base stars is in the actual map that Betty has.

697

01:18:01,720 --> 01:18:09,720

Getting back to the Theory 2 Lightyear model, there are 16 stars that are not in it that are in the Nougolese catalog.

698

01:18:09,720 --> 01:18:14,720

These are all quite dim. Some of them are about 7th absolute magnitude,

699

01:18:14,720 --> 01:18:22,720

but none of these are bright enough to have planets with life, at least if we understand the mechanism correctly.

700

01:18:22,720 --> 01:18:27,720

There may be other stars that have parallax changes that were in the Nougolese catalog

701

01:18:27,720 --> 01:18:31,720

that also put them in this 32 lightyear range, but this hasn't been checked yet.

702

01:18:31,720 --> 01:18:34,720

It's one of the things I'm going to be working on very shortly.

703

01:18:34,720 --> 01:18:41,720

Right now I'm in the process of going through the Yale Trigometric Parallax Catalog

704

01:18:41,720 --> 01:18:49,720

and pulling out all these stars in a parallax of .049 to .030.

705

01:18:49,720 --> 01:18:57,720

I would take all the stars from 65 lightyears out to 100 lightyears to supplement the Hlesig catalog

706

01:18:57,720 --> 01:19:01,720

so that a model can be constructed of these stars.

707

01:19:01,720 --> 01:19:06,720

Now this is for my listing of stars that could have planets with life,

708

01:19:06,720 --> 01:19:11,720

so I'm not going to be including the stars brighter than F5.

709

01:19:11,720 --> 01:19:21,720

The Yale Trigometric Parallax Catalog does not give the groupings like the MK groupings

710

01:19:21,720 --> 01:19:24,720

so that you know which ones are main sequence stars.

711

01:19:24,720 --> 01:19:29,720

This has to be worked out, so I have to figure out the absolute magnitude for all of these stars.

712

01:19:29,720 --> 01:19:38,720

About 500 stars have been marked in the catalog, and I have to go back over and take out those which are spectroscopic binaries,

713

01:19:38,720 --> 01:19:41,720

which have the wrong magnitude brightness and so forth,

714

01:19:41,720 --> 01:19:44,720

and try to figure out which of these are main sequence stars.

715

01:19:44,720 --> 01:19:50,720

Now the Dole Brook Habitable Planets for Man came,

716

01:19:50,720 --> 01:19:59,720

and finally I have a listing of what the absolute magnitude should be for the spectrum groupings like a G.O. and so forth.

717

01:19:59,720 --> 01:20:09,720

I've matched this with my HR diagram, and the G groupings up to about G5 match quite well,

718

01:20:09,720 --> 01:20:19,720

but from there on down there is quite a difference between his groupings for the spectroscopic subgroupings and mine.

719

01:20:19,720 --> 01:20:23,720

One of the first things I can do before I can finish this listing

720

01:20:23,720 --> 01:20:29,720

is to make an HR diagram of all the stars that are not spectroscopic binaries in the Gleasy catalog,

721

01:20:29,720 --> 01:20:33,720

which is now well over a thousand stars.

722

01:20:33,720 --> 01:20:43,720

This catalog I should be able then to tell if his grouping is correct or if my subgroupings are more correct.

723

01:20:43,720 --> 01:20:50,720

I have already worked out a two-page chart that will show what the absolute magnitude is

724

01:20:50,720 --> 01:20:57,720

for a given visual magnitude of the given parallax within the range of the stars that could have planets with life,

725

01:20:57,720 --> 01:21:07,720

using Dole's system of 6.66 as the minimum absolute magnitude.

726

01:21:07,720 --> 01:21:23,720

He says that the K1s are 6.66 whereas my K1s range about 6.1 or 6.2, and there's quite a difference here.

727

01:21:23,720 --> 01:21:30,720

I have written the Tsushuhun twice, once to send my sheet of the stars that could have planets with life,

728

01:21:30,720 --> 01:21:37,720

and then to send a correction sheet and also ask him where he thinks the absolute minimum should be.

729

01:21:37,720 --> 01:21:45,720

Because in between the time I sent the first letter, I received the Dole book and realized the discrepancies and didn't like them to stand.

730

01:21:45,720 --> 01:21:53,720

He did not want to give a definite answer to the absolute minimums.

731

01:21:53,720 --> 01:21:59,720

We have no way of knowing as yet what it is, but he sent some very interesting material.

732

01:21:59,720 --> 01:22:06,720

I haven't had a chance to read it, and I hope to be reading it the next day or so, but to continue to this question of life.

733

01:22:06,720 --> 01:22:17,720

The Carlos Jasek Horacio Conde y Emilia de Sierra catalog of stellar spectra classified in the Morgan-Canan system

734

01:22:17,720 --> 01:22:20,720

and in from the La Plata Observatory.

735

01:22:20,720 --> 01:22:30,720

I'm checking through this list of 500 stars to this catalog also to see what star classification they give it.

736

01:22:30,720 --> 01:22:36,720

I find a great deal of discrepancy between the Aeltrigeumetric parallax catalog and the Yashchik catalog

737

01:22:36,720 --> 01:22:45,720

The stellar spectra of these stars is not only about a third of the stars in the Beltrigeumetric

catalog,

738

01:22:45,720 --> 01:22:54,720

but the ones that I'm checking are in the Yashchik catalog, mainly probably because these stars are quite dim and they're quite a ways out

739

01:22:54,720 --> 01:22:59,720

and there's nothing particularly interesting in them for most astronomers.

740

01:22:59,720 --> 01:23:05,720

They probably aren't studied as much since most of these are below visual magnitude stars.

741

01:23:05,720 --> 01:23:12,720

I'm running into some of those interesting dim stars that seem to be main sequence stars.

742

01:23:12,720 --> 01:23:21,720

Of course this dimness could be caused either because there's a wrong parallax measurement or there's a wrong spectra classification,

743

01:23:21,720 --> 01:23:29,720

or it may be these stars that I'm trying to see if they actually exist that could be causing the

negative parallax.

744

01:23:29,720 --> 01:23:37,720

Again there's many things that could cause this discrepancy between the brightness that they should be and their actual brightness,

745

01:23:37,720 --> 01:23:43,720

mainly in errors and measurements, but may be productive.

746

01:23:43,720 --> 01:23:48,720

It's one of the interesting sidelines of the things that I'm working on.

747

01:23:48,720 --> 01:23:53,720

Once the listing on the Egyce catalog for the stars that could have plants with life is made,

748

01:23:53,720 --> 01:24:01,720

and then the Yeltrichometric parallax listing is added to it to bring the listing out to 100 light years,

749

01:24:01,720 --> 01:24:09,720

I'll start working on the models so that we can check what stars besides the ones in Betty's map

that the humanoids,

750

01:24:09,720 --> 01:24:16,720

assuming that they do come from there, could go to in the other areas that aren't out in the map area.

751

01:24:16,720 --> 01:24:25,720

As soon as the model is finished then I'll start on the 65 light year model of all the stars in the Egyce catalog.

752

01:24:25,720 --> 01:24:30,720

This I expect to take quite a few months to accomplish.

753

01:24:30,720 --> 01:24:35,720

Another problem with the listing is what stars to include in it,

754

01:24:35,720 --> 01:24:46,720

because according to Sushu Hoon, there's still quite a bit of discrepancy unknown in what causes the planet formation.

755

01:24:46,720 --> 01:24:52,720

I assume this means also that they don't know for sure whether the double stars have planets or not.

756

01:24:52,720 --> 01:24:54,720

Chris and Kipers theory they don't.

757

01:24:54,720 --> 01:25:00,720

If my interpretation of Betty's map is correct, they don't go to the double stars,

758

01:25:00,720 --> 01:25:11,720

even though some of these are fairly wide apart and also the stars, the individual stars that make up the multiple system,

759

01:25:11,720 --> 01:25:15,720

could are in the right spectrum range and so forth.

760

01:25:15,720 --> 01:25:25,720

However, the base stars themselves, Zeta 1 and 2 retic and do form a type of double system that's very, very widespread.

761

01:25:25,720 --> 01:25:32,720

Again, a very crude, quick measurement, if I did it accurately, which I don't guarantee,

762

01:25:32,720 --> 01:25:40,720

puts the mounting minimum of 3,000 astronomical units apart, which is quite far.

763

01:25:40,720 --> 01:25:47,720

Although it's all about the light year would be, certainly don't guarantee my arithmetic in this case,

764

01:25:47,720 --> 01:25:54,720

since I hadn't double checked it or anything, but just to give a very crude estimate.

765

01:25:54,720 --> 01:25:59,720

Double stars are closer together than what Pluto in the sun is.

766

01:25:59,720 --> 01:26:05,720

Many of them are about Jupiter's distance or in some cases just our distance from the sun.

767

01:26:05,720 --> 01:26:10,720

There's a very wide range in the double stars as to their distance apart.

768

01:26:10,720 --> 01:26:19,720

It's quite difficult to say where to draw the line between a double star or those that just share a common proper motion

769

01:26:19,720 --> 01:26:24,720

because those that share a common proper motion can be revolving around each other also.

770

01:26:24,720 --> 01:26:32,720

So, it's hard to know where to say that this is a single star or this is a part of a double system.

771

01:26:32,720 --> 01:26:37,720

I'm not known for sure whether the double stars can have planets of life.

772

01:26:37,720 --> 01:26:43,720

I'm going to also include two other listings, one with double stars that have a suitable component,

773

01:26:43,720 --> 01:26:46,720

as long as the other component is not brighter.

774

01:26:46,720 --> 01:26:55,720

Since if it is brighter, it means that the system is a young system and that any life would probably be destroyed

775

01:26:55,720 --> 01:26:58,720

when the other star turns into the red giant.

776

01:26:58,720 --> 01:27:04,720

However, if they're far enough apart, this might not affect the other one enough to destroy life on the planet.

777

01:27:04,720 --> 01:27:09,720

I'll have a third list that would list the spectroscopic binaries.

778

01:27:09,720 --> 01:27:22,720

Here again, they would have to be checked using Sushu Houn's system for measuring the suitability for a stable orbit with double stars.

779

01:27:22,720 --> 01:27:27,720

And I am not about to undertake this at the present time except for listing these stars

780

01:27:27,720 --> 01:27:34,720

and then anyone who wants to can go through the mathematics of deciding whether it would be suitable or not.

781

01:27:34,720 --> 01:27:38,720

Again, if Betty's map is correct, they don't go to any of these,

782

01:27:38,720 --> 01:27:48,720

which means that probably the likelihood is very small since they are picking the very top of the cream of the ones that could have planets of life to go to

783

01:27:48,720 --> 01:27:55,720

and are ignoring those that are still possible but not as probable.

784

01:27:55,720 --> 01:28:00,720

In most of my calculations, I'm assuming that Betty's map is correct.

785

01:28:00,720 --> 01:28:07,720

It may not be that the indications are in my way of thinking that they probably is correct.

786

01:28:07,720 --> 01:28:16,720

Another problem with the listing is the break-off points, which was discussed earlier, but this creates quite a problem.

787

01:28:16,720 --> 01:28:21,720

I have the other list that I made earlier in several different parts.

788

01:28:21,720 --> 01:28:27,720

The F5 to F8 were the ones that could be colonized.

789

01:28:27,720 --> 01:28:31,720

They could have life of their own, but it would not be intelligent life.

790

01:28:31,720 --> 01:28:42,720

And then F8 to absolute magnitude 6.0 as my group one and then 6.0 to 7.5 as group two.

791

01:28:42,720 --> 01:28:48,720

Now, since I have the dual listing and he breaks off the absolute magnitude as 6.6,

792

01:28:48,720 --> 01:28:54,720

I'm going to take this as the bottom limit instead of going to 7.5,

793

01:28:54,720 --> 01:29:02,720

whether to break the F5 group to F7 as a separate group

794

01:29:02,720 --> 01:29:09,720

or to include it in the just a listing of planets that could have life, period, whether it's intelligent or not.

795

01:29:10,720 --> 01:29:19,720

And this F5 to F7 has other problems in that not all of these may be revolving slowly.

796

01:29:19,720 --> 01:29:25,720

And I don't have rotational data on these, so some of these may not have planets.

797

01:29:25,720 --> 01:29:37,720

And also, if I take into account Betty's map, they don't go below 6.0 or 6.1 at most.

798

01:29:37,720 --> 01:29:43,720

And whether to keep these as a separate group or not is a problem.

799

01:29:43,720 --> 01:29:53,720

That is to have group one go, say, from F5 through absolute magnitude 6.0

800

01:29:53,720 --> 01:29:59,720

and then take it from 6.1 to 6.6 as a separate subgroup

801

01:29:59,720 --> 01:30:02,720

or whether to have the whole listing as one single group.

802

01:30:03,720 --> 01:30:11,720

I think what I shall probably do is list them from F5 down to 6.6

803

01:30:11,720 --> 01:30:17,720

and then add a separate note for those that are interested in the UFO data as such

804

01:30:17,720 --> 01:30:23,720

that they can make their own listing, eliminating those that are too low in magnitude.

805

01:30:23,720 --> 01:30:26,720

I haven't decided entirely on this.

806

01:30:26,720 --> 01:30:31,720

I still have a lot of work to do in the checking of these stars and getting them listing.

807

01:30:31,720 --> 01:30:37,720

Another problem in listing is that the stars in the Eglise catalogue are the 1950 epic

808

01:30:37,720 --> 01:30:44,720

and the stars in the Yelotrichometric and the Morgan-Conan system, the Astrick catalogue,

809

01:30:44,720 --> 01:30:47,720

are in the 1900 epic.

810

01:30:47,720 --> 01:30:53,720

And this means that all the stars in those catalogs have to be changed over to the 1950 epic

811

01:30:53,720 --> 01:30:58,720

or the ones in the Eglise catalogue have to be changed over to the 1900 epic

812

01:30:58,720 --> 01:31:05,720

before they can be listed in an order since the placement would be off considerably on some of them.

813

01:31:05,720 --> 01:31:13,720

Again, I probably should list them both ways, which means I'll have to list probably all,

814

01:31:13,720 --> 01:31:19,720

I imagine, there'll be at least three or four hundred stars in the final listing

815

01:31:19,720 --> 01:31:25,720

in just the single stars alone to say nothing of the double star listing

816

01:31:25,720 --> 01:31:28,720

in the spectroscopic binary listing.

817

01:31:28,720 --> 01:31:37,720

So this, the proper motion of some of the stars, changes their position from the 1900 to the 1950 listing.

818

01:31:37,720 --> 01:31:41,720

And I haven't worked with the figuring out the actual proper motion

819

01:31:41,720 --> 01:31:47,720

and related this to just the normal epic changing position.

820

01:31:47,720 --> 01:31:51,720

I don't think it will take too much to learn it, but it's something I haven't worked with yet

821

01:31:51,720 --> 01:31:56,720

and so I'm going to have a lot of learning to do before I even begin to tackle all of this.

822

01:31:56,720 --> 01:32:03,720

Dr. Vandy Camp, put a very interesting pocket on information on the nearest stars and other things

823

01:32:03,720 --> 01:32:06,720

that arrived yesterday, which I'm very anxious to get at too.

824

01:32:06,720 --> 01:32:10,720

Actually, I received letters from almost every place that I sent.

825

01:32:10,720 --> 01:32:16,720

I haven't received anything from Dr. Sagan yet or Dr. Vasselvesky's.

826

01:32:16,720 --> 01:32:23,720

Not that I really expected to get him, and gave it from either one of them, but I was hoping.

827

01:32:23,720 --> 01:32:26,720

Dr. Sagan sent to the wrong address.

828

01:32:26,720 --> 01:32:31,720

I had sent it to where he was when he was writing, Intelligent Life in the Universe,

829

01:32:31,720 --> 01:32:35,720

but it wasn't returned so I assumed it was forwarded to him.

830

01:32:35,720 --> 01:32:38,720

I immediately took to Perkins Observatory on December 6th.

831

01:32:38,720 --> 01:32:42,720

They normally aren't open on Saturday, but Dr. Mitchell came and let me in

832

01:32:42,720 --> 01:32:48,720

and we talked over the project that his students are doing with the nearest stars

833

01:32:48,720 --> 01:32:53,720

and this odd groupings that I discovered in the model.

834

01:32:53,720 --> 01:33:03,720

There's only been one report that's been turned in, but it showed a high clustering of the 10th magnitude stars

835

01:33:03,720 --> 01:33:09,720

out in the 65 light-year range that is at SIN, beyond the 32 light-year model.

836

01:33:09,720 --> 01:33:12,720

But it's very definitely a clumping of them.

837

01:33:12,720 --> 01:33:17,720

I'm hoping to learn how the other ones turned out.

838

01:33:17,720 --> 01:33:24,720

I'm not able to pin these down quite accurately once the 65 light-year model of all the stars is made.

839

01:33:24,720 --> 01:33:27,720

But again, this will take quite a while to do.

840

01:33:27,720 --> 01:33:29,720

I'm glad that the books you lent me.

841

01:33:29,720 --> 01:33:32,720

The Great Soul Trial was very interesting.

842

01:33:32,720 --> 01:33:35,720

I just have a good beginning on it.

843

01:33:35,720 --> 01:33:41,720

This is the first chance I've had to sit down and relax for months.

844

01:33:41,720 --> 01:33:43,720

I certainly appreciate you lending them to me.

845

01:33:43,720 --> 01:33:46,720

I'll get them back to you as soon as possible.

846

01:33:46,720 --> 01:33:53,720

I hope to have the HR diagram done possibly sometime tomorrow or at least sometime next week.

847

01:33:53,720 --> 01:33:57,720

I'm doing about five to six, seven different things at the same time.

848

01:33:57,720 --> 01:34:01,720

It's rather confusing at times.

849

01:34:01,720 --> 01:34:06,720

Well, again, have a very good new year and good luck in your taping and your other work.

850

01:34:06,720 --> 01:34:15,720

Oh, if you have a chance, I would like a copy of anything that you have on Barney or Betty on your tapes.

851

01:34:15,720 --> 01:34:23,720

Or any case that is similar to this, the normal contact, can-conduct-e-report type thing.

852

01:34:23,720 --> 01:34:30,720

I'm interested in sociologically, but not too interested in the tapes unless you think it is an authentic experience.

853

01:34:30,720 --> 01:34:39,720

Much of the regular contact-e material, I believe, is probably just tapping on conscious material such as it's done in automatic writing,

854

01:34:39,720 --> 01:34:47,720

where it seems to be coming from an outside source but is actually coming from the person themselves at a subconscious level.

855

01:34:47,720 --> 01:34:55,720

This may not be true for all of them, but I think it is true for quite a few of the contact-e type thing.

856

01:34:55,720 --> 01:35:05,720

However, it may mask some of the real physical things that are taking place, which I think Betty's experience was one.

857

01:35:05,720 --> 01:35:12,720

And I'm sure there probably are a good many others that are. However, I doubt if these are your normal contact-e.

858

01:35:12,720 --> 01:35:22,720

Getting into another area, I got a Ray Palmer flying saucer magazine the other day that had one interesting item.

859

01:35:22,720 --> 01:35:31,720

There's a clipping service that is sort of a share-of-the-cost thing. It's $3 per month.

860

01:35:31,720 --> 01:35:43,720

And the address is our research committee, Rod Dyke, that's D-Y-K-E director. Sounds quite interesting.

861

01:35:43,720 --> 01:35:49,720

The magazine as a whole, I think, is for nonsense, but sometimes it has some interesting things in

the letters.

862

01:35:49,720 --> 01:35:51,720

It has been somewhat better lately.

863

01:35:51,720 --> 01:35:55,720

I read Mr. Farrish's article and said it was quite interesting.

864

01:35:55,720 --> 01:36:03,720

I'm going to be turning the tape over now and go over some corrections to the first part of the tape.

865

01:36:03,720 --> 01:36:06,720

In listening to it, I realized there are some things I didn't make very clear.

866

01:36:06,720 --> 01:36:13,720

This is Monday, December 29th. I did some more reading in the Soul Trial,

867

01:36:13,720 --> 01:36:21,720

and I also did quite a bit of work on the picking of the stars in the Yale Trigometry Parallax catalog.

868

01:36:21,720 --> 01:36:25,720

And I'm running into some more problems with some of these odd stars.

869

01:36:25,720 --> 01:36:31,720

First of all, on the tape and the other side, I had mentioned that the...

870

01:36:31,720 --> 01:36:36,720

I was taking this list out to Parallax 30 and said it was 100 light years.

871

01:36:36,720 --> 01:36:41,720

I'm going to press the Parallax .032 as 100 light years,

872

01:36:41,720 --> 01:36:49,720

but I'm taking it out a little bit farther because it's easier to pull all the Parallaxes out within a certain set number.

873

01:36:49,720 --> 01:36:52,720

So I'm pulling out all the 4s and the 40s and 30s.

874

01:36:52,720 --> 01:37:00,720

Because Parallax is rather shaky this far out, this may catch a few that were placed a little farther out than what they should have been,

875

01:37:00,720 --> 01:37:02,720

and so they'll still be included in the list.

876

01:37:02,720 --> 01:37:09,720

So I'm going to have the accuracy of the data. Perhaps I can go over this a little bit to clarify it.

877

01:37:09,720 --> 01:37:17,720

Out to about 10 light years, our measurements are quite accurate within a small fraction of a light year.

878

01:37:17,720 --> 01:37:24,720

Out to 20 light years, there are a few stars that vary from one catalog to another as much as one or two light years,

879

01:37:24,720 --> 01:37:28,720

but this is rare. Usually it's only about half light year difference.

880

01:37:28,720 --> 01:37:35,720

When you get out to the 32 light years, most of the stars are fairly stable from one measurement to another,

881

01:37:35,720 --> 01:37:43,720

but a few have quite a few changes in measurements, including the base stars.

882

01:37:43,720 --> 01:37:54,720

By the time you get out to the 65 light years, there's quite a bit of difference in measurements from one source to another.

883

01:37:54,720 --> 01:37:58,720

Of course, out to the 100 light years, it is getting rather shaky.

884

01:37:58,720 --> 01:38:08,720

So my listing will not be completely accurate, and this may account for some of these odd stars that seem to be way too bright or way too dim for the Parallax that they have,

885

01:38:08,720 --> 01:38:16,720

because your absolute magnitude depends on the distance out, which of course depends on the Parallax reading.

886

01:38:16,720 --> 01:38:25,720

If this is off, then your absolute magnitude as it is figured is off, and so your magnitude spectrum ratio is going to be off.

887

01:38:25,720 --> 01:38:34,720

So I think probably in my total list, I'll probably include the F5 through the absolute magnitude 6.6,

888

01:38:34,720 --> 01:38:40,720

and even though this will extend over the range on either side, it should pull in the stars.

889

01:38:40,720 --> 01:38:46,720

I probably have some that don't really qualify as the best stars to have life,

890

01:38:46,720 --> 01:38:51,720

but the list should include most of the stars that should have life.

891

01:38:51,720 --> 01:38:58,720

So far as the stars that we've measured Parallax go, and I mentioned before,

892

01:38:58,720 --> 01:39:03,720

there's quite a few that haven't had the Parallax measured, and I hadn't realized how many.

893

01:39:03,720 --> 01:39:09,720

So there may be quite a few that are not on the list because we do not know how far out they are.

894

01:39:09,720 --> 01:39:18,720

So getting back to Betty's map and the difference between the old Gleasy Catalog and the new Gleasy Catalog,

895

01:39:18,720 --> 01:39:22,720

the most of them had very little changes.

896

01:39:22,720 --> 01:39:24,720

There were a few changes.

897

01:39:24,720 --> 01:39:32,720

54 Pisces is out about two light-years farther in the new Gleasy Catalog than what it was in the old.

898

01:39:32,720 --> 01:39:37,720

This may account for Betty's statement, which rather worried me because it didn't hold true for the old one,

899

01:39:37,720 --> 01:39:45,720

but it seemed quite far out, whereas actually it wasn't really any farther from the base stars than my A star,

900

01:39:45,720 --> 01:39:48,720

which she thought seemed a little nearer.

901

01:39:48,720 --> 01:39:57,720

So Zeta Tucana is 23.3 light-years in the new Gleasy Catalog,

902

01:39:57,720 --> 01:40:01,720

which is about one year difference from what it was before.

903

01:40:01,720 --> 01:40:06,720

Other than the two stars that were mentioned on the other side of the tape,

904

01:40:06,720 --> 01:40:11,720

which I will want to finish the model before I definitely say which two they are,

905

01:40:11,720 --> 01:40:18,720

these are the only major changes in the new Gleasy from the old Gleasy Catalog.

906

01:40:18,720 --> 01:40:23,720

This is all that I have at this time, so again, have a good new year.

907

01:40:23,720 --> 01:40:26,720

Sincerely, Marjorie Fish.