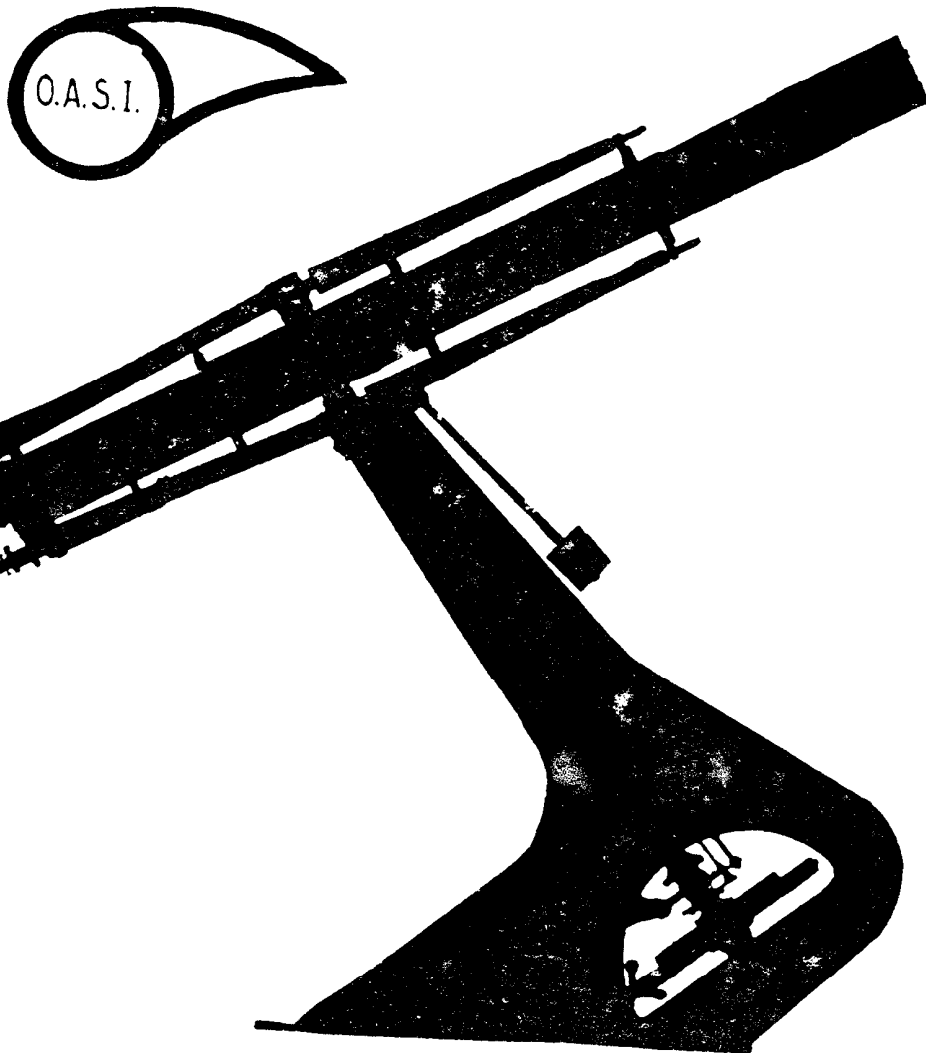


SEPTEMBER 1983



The Orwell Park Observatory 10 inch Astronomical Telescope at Nacton near Ipswich

The South East Essex Astronomical Society wrote to me at the end of July, too late for inclusion in August's newsletter, inviting us to participate in their 'April Day' and to attend any of their lectures for the 1983/84 session. The 'April Day' will be on Saturday 28th April 1984 from 11.30 to 6.30 p.m. Main attractions will be one hour lectures from Patrick Moore and Heather Cooper, and a ½ hour quiz. Admittance by ticket only. More information when available.

- Their lecture programme so far comprises:
- 1983 Thursday 13th October, Konrad Malin-Smith  
Astrophotography with Amateur Equipment
  - Thursday 3rd November, Dr. Simon Mitton  
Supernovae & Galaxies (Ticket only)
  - Thursday 1st December, Nigel Henbest  
The New Astronomy (Ticket only)
  - 1984 Thursday 5th January, Film Night

R.E. Gooding

### NIGHT SKY

Constellations (all times B.S.T.)

The summer constellations, Cygnus, Lyra, Aquila are now receding in the west, making way for the constellations of autumn, Pegasus, Andromeda, Perseus.

Sun Rises approx. 06.10 to 07.10 Sets approx. 20.00 to 18.40

Moon ● 7th D 14th ○ 22nd ◐ 29th

#### Occultations

1	ZC 752	Mag. 4.7	R	4h 13.5m
12	Jupiter	" 1.6	D	19h 18.1m
12	Jupiter	" 1.6	R	20h 34.7m
25	ZC 322	" 5.7	R	3h 12.4m
25	ZC 327	" 4.5	R	4h 32.1m
27	ZC 700	" 5.7	R	23h 29.7m

#### Mercury

Inferior Conjunction 15th Sept.

#### Venus

Rises about 1h before sun rises at beginning of month

#### Mars

Visible in early morning sky mag. 2.0

#### Jupiter

Conjunction with Uranus ½° to the south on Sept. 24th

#### Saturn

Sets about 1h 20m after sun set mag. 0.9

#### Uranus

Sets about 2h 30m after sun set mag. 5.8

#### Neptune

Sets about 3h 50m after sun set mag. 7.7

R. Gooding



Observation of Perseids:

M Barriskill saw 22 Perseids and one sporadic meteor on Sat. Aug 13th between 0315 and 0415 BST.

There is one shower this month:

Piscids 3 radiants (3rd is in October)

- 1. Sept. 9th ZHR = 10 00:36 hrs +7degrees
- 2. sept. 21st ZHR = 5 00:24 hrs +0degrees

Telescopically active. Several radiants with low rates. Moonlight interferes with second radiant maxima.

NEWS

D Barnard

No doubt many of you have heard the news that the star Vega could have a solar system, according to the observations from the orbiting Infra-red Astronomical Satellite. This discovery of radiation is the first direct detection of planets around another star.

The satellite was systematically checking bright stars at infra-red wave lengths. These observations cannot be readily carried out on the ground because of the atmosphere. The radiation discovery was totally unexpected. Normally the satellite only observes cool stars. Vega, as we know, is a hot bluish white star. The data was checked and it became certain that the radiation was coming from around Vega and not from a source in front of or behind the star. The discovery was made in mid July but was kept secret until a month later.

If there are planets around Vega they will be relatively young with much dust present, so it is very doubtful that life has evolved.

The satellite is now going to observe the IR emissions from the 40 nearest stars before its gas runs out in four months time.

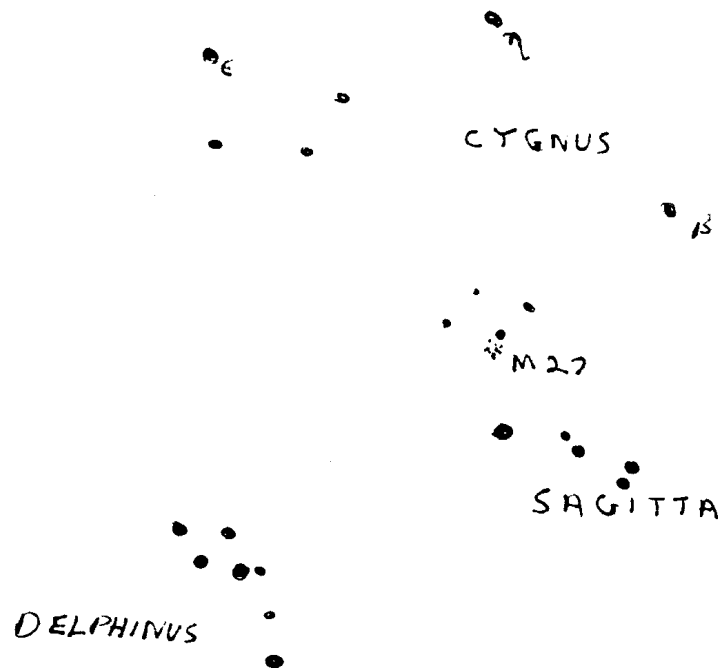
New Scientist Vol.99 pp455-6

Another interesting article in the above publication (pp478-82) is 'Counting the Stars by Computer', and is about scanning astronomical photographs automatically using laser and computer control. The issue (and others) will find their way to the observatory to join the very large selection of monthly periodicals in the library. If you don't come up - you won't see them!

During September the constellation Vulpecula is near the meridian. A faint constellation lying between Cygnus and the small constellations Delphinus and Sagitta. It contains the well known planetary nebula M27 the 'Dumb-bell Nebula'.

The nebula is clearly visible in binoculars as a roundish pale disk of about magnitude 7.6. In a 3 inch (75mm) telescope the disk begins to take on an elliptical shape giving a hint of the reason for the name. The appearance in a 10 inch (250mm) telescope is of a large faint elongated object about 8' x 5' in size. The Dumb-bell shape is clearly visible as two brighter regions on either side of a slightly darker central region. Faint nebulosity is also seen on either side of the Dumb-bell shape showing the complete circular appearance. The distance of the object is uncertain but probably around 900 light years. Using this figure as the distance gives a diameter of about 2.5 light years.

As in all planetary nebulae the expanding gas cloud that forms the nebula is illuminated by an extremely hot central star. In M27 the surface temperature of the central star is about 85,000 degrees centigrade. It has an apparent magnitude of 13.5 and is invisible in all but the largest telescopes because of the surrounding nebulosity.



### ADDITIONAL OBSERVATORY HISTORY

The history of astronomy at Nacton is constantly being revised as new information comes to light. What follows is the formation of the Ipswich & District Astronomical Society and supersedes the account in the current observatory history.

During January 1949 an astronomical section of the Ipswich & District Natural History Society was formed under the direction of a Mr. Roland Clark, F.R.A.S. By January 1950 the section had split from the Natural History Society, forming the Ipswich & District Astronomical Society. The Society's President was Mr. R. Clark and the secretary Mr. D.J. Fulcher. Roland Clark was born in the same year that Tomline died, 1889. He remained president of the I.D.A.S. until he died on 10th April 1954.

By the end of 1950 the membership had reached 66 with an annual subscription of 5/-. Regular meetings were held at Nacton and at the homes of members with telescopes. Lecture Meetings were held monthly in the autumn and winter.

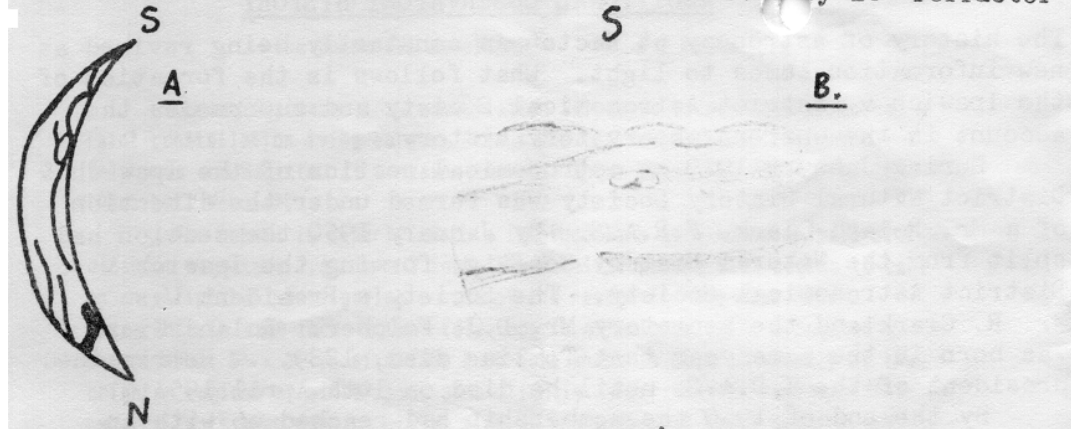
The I.D.A.S. ran an active telescope making section and by December 1950 had built a 6" and 7" reflector with others under construction. A library was started along with subscriptions to 'Sky and Telescope' and the B.A.A. Excursions to Greenwich and Cambridge Observatories were arranged.

Information on the I.D.A.S. is now accurately known up to December 1950. Several other sources of information have recently come to light which require researching, so watch this space.

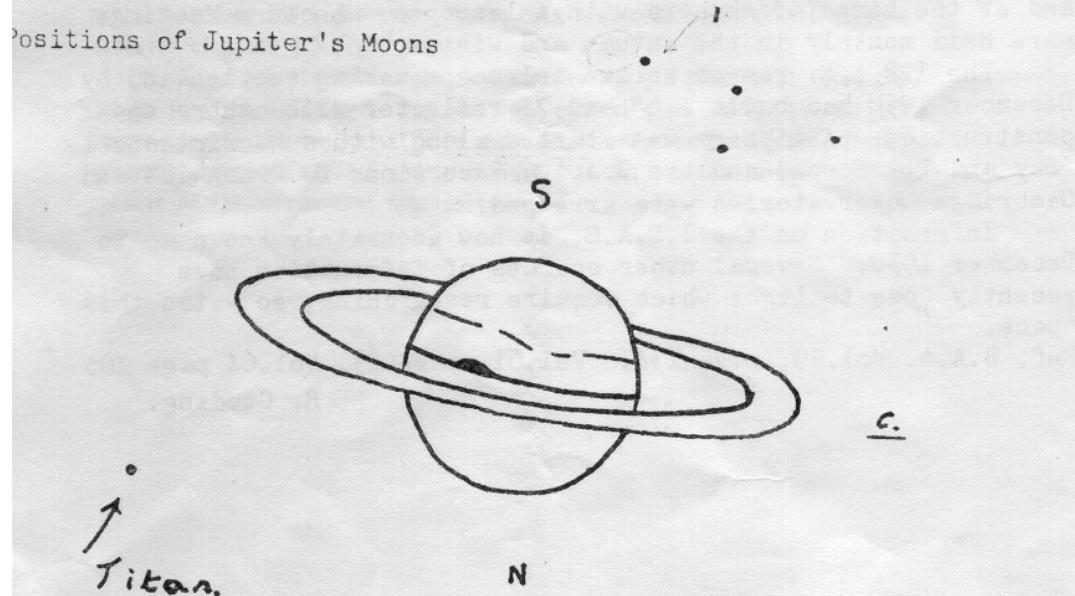
Ref. B.A.A. Vol.59, page 134, Vol.61, page 25, Vol.64 page 405  
R. Gooding.

### OBSERVATION OF JUPITER, VENUS AND SATURN

With 60 mm Refractor and the Orwell Park Observatory 10" refractor



Positions of Jupiter's Moons



- A Observation of the Planet Venus 23/7/83 Time 8.52 - 9.08 p.m.  
Conditions good. 60 mm refractor used to make the observation also used was light green filter.
- B Observation of Planet Jupiter 5/8/83 Time 9.40 - 9.56 p.m.  
Conditions bad. The moon marked (1.) was watched coming out of transit at about 10.05. 10" Refractor used .
- C Observation of Planet Saturn 5/8/83. Time 9.08 - 9.30.  
Conditions very good. The Moon Titan was observed at about '7 o'clock'. 10" refractor used also.

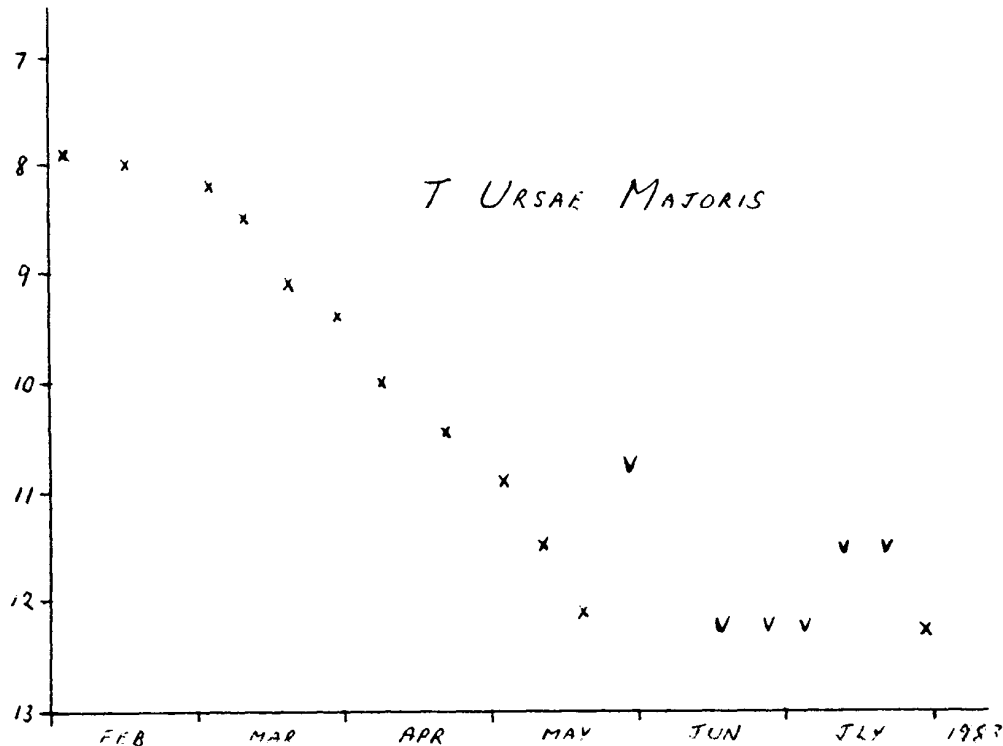
VARIABLE STAR OBSERVATIONS

by Mike Nicholls

This light curve shows T Ursae Majoris from February to July this year. As can be seen, the star is fading over the first part of this period. The V symbol during June and July indicates that the variable cannot be seen, the point indicated being the magnitude of the faintest star visible. The minimum magnitude of T UMa is probably about 13. The star field around the variable is rather sparse making location below about magnitude 12 rather difficult. In late July a star appeared in the correct vicinity which is presumably T UMa brightening again.

This variable is one of the class of long period variables which were discussed in last month's journal. Its average period is 257 days, with a light range from about 7.7 to 13.

Observations were made using an 8" reflector.



PROGRAMME FOR SEPTEMBER

MONDAYS from 8pm 5, 12, 19, 26	DOUBLE STAR & PLANETS SECTION Mr N Taylor [redacted], Walton Felixstowe Mr T Gillon [redacted], Felixstowe	Tel: Fel. [redacted] Tel: Fel. [redacted]
TUESDAYS from 8pm 6, 13, 20, 27	GENERAL OBSERVATION SECTION Mr N Gage, [redacted], Trimley Mr R Hebbs, [redacted],	Tel: Fel. [redacted] Tel: Fel. [redacted]
WEDNESDAYS from 8pm 7, 14, 21, 28	NEBULEA & FAINT OBJECTS SECTION Mr M Cook, [redacted], Ipswich Mr D Payne, [redacted], Wickham Market.	Tel: Ips. [redacted] Tel: W.Mkt [redacted]
FRIDAYS from 8pm 2, 16, 30	VARIABLE STAR SECTION Mr R Gooding, [redacted], Ipswich Mr M Nichols, [redacted], Capel St. Mary.	Tel: Ips. [redacted] Tel: Ips. [redacted]
SUNDAYS from 8pm 4, 18	GENERAL OBSERVATION SECTION Mr R Adams, [redacted], Ipswich Mr M Barriskill, [redacted], Ipswich	Tel: [redacted]

1983 COMMITTEE

CHAIRMAN	D Payne	[redacted], Wickham Market, IP13 OSD	Work: [redacted] Home: [redacted]
VICE CHAIRMAN	R Cheesman	[redacted], Corringham, Lane, Essex SS17 9BU	Work: [redacted] Extn [redacted]
SECRETARY	R Gooding	[redacted], Ipswich	Work: [redacted] Home: [redacted]
TREASURER	M Nicholls	[redacted], Capel St. Mary, Ipswich, IP9 2EX	Work: [redacted] Home: [redacted]
MEMBERSHIP SEC.	M Barriskill	[redacted], Ipswich	
P.R.O.	D Barnard	[redacted], Ipswich, IP4 5PP	Home: [redacted] Work: [redacted]
MAINTENANCE	M Cook	[redacted], Ipswich, IP4 5QA	Home: [redacted] Work: [redacted]
FUNCTIONS	E Sims	[redacted], Ipswich, IP1 4HA	Home: [redacted]
LIBRARIAN	N Gage	[redacted], Trimley, St Mary, IP11 9QY	Home: [redacted] Work: [redacted]

## MEMBERSHIP LIST AS AT 23RD AUGUST 1983

Adams Mr R : [REDACTED] : IPSWICH : IP2 9ST : [REDACTED] :  
 Adams Mr R J : [REDACTED] : Walton : FELIXSTOWE : Suffolk : IP11 9DB :  
 :  
 Albins Mr C : [REDACTED] : IPSWICH : IP2 ORU : [REDACTED] :  
 Angus Mr I : Headmaster : Orwell Park School : Nacton : IPSWICH : IP10 OEP :  
 :  
 Arnold Mr D : [REDACTED] : IPSWICH : IP10 OAA :  
 Aspen Mr M : [REDACTED] : IPSWICH : IP2 9LY : [REDACTED] :  
 Baldry Mr C : [REDACTED] : IPSWICH : IP4 5JH : [REDACTED] :  
 Barnard Mr D A : [REDACTED] : IPSWICH : IP4 5PP : [REDACTED] :  
 Barriskill Mr M A P : [REDACTED] : IPSWICH : IP1 2EZ :  
 Brassington Mr M J : [REDACTED] : FELIXSTOWE : Suffolk : IP11 8DR :  
 :  
 Brown Mr D J : [REDACTED] : IPSWICH : IP2 9LE : [REDACTED] :  
 Brown Mr E A : [REDACTED] : Framlingham : WOODBRIDGE : Suffol  
 IP13 9JW : [REDACTED] :  
 Butcher Mr T : [REDACTED] : Trimley : IPSWICH :  
 Button Mr C : [REDACTED] : IPSWICH : IP2 9NP : [REDACTED] :  
 Byers Mr F D : [REDACTED] : Trimley : IPSWICH : IP10 OTS : Felix [REDACTED] :  
 Chaplin Mr [REDACTED] : Needham Market : IPSWICH : IP6 8DG : [REDACTED] :  
 Collinson Mr E H : [REDACTED] : Playford : IPSWICH : IP6 9DR :  
 :  
 Cook Mr M P : [REDACTED] : IPSWICH : IP4 5GA : [REDACTED] :  
 [REDACTED] : [REDACTED] : IPSWICH : IP1 6SF : [REDACTED] :  
 Crooks Mr W J : [REDACTED] : FELIXSTOWE : Suffolk : IP11 7RU : [REDACTED] :  
 Dedman Mr S : [REDACTED] : Ufford : WOODBRIDGE : Suffolk : IP13 6ES :  
 Evans Mr P M : [REDACTED] : Stutton : IPSWICH : IP9 2TF :  
 :  
 Fensom Mr H W : [REDACTED] : FELIXSTOWE : Suffolk : IP11 9JZ : [REDACTED] :  
 Fleming Mr J F : 20 Almondhayes : IPSWICH : IP2 9SH : [REDACTED] :  
 Gage Mr N : [REDACTED] : FELIXSTOWE : Suffolk : IP11 9QY : [REDACTED] :  
 :  
 Gentry Mr D : [REDACTED] : IPSWICH : IP2 9LY : [REDACTED] :  
 Gillan Mr T : [REDACTED] : FELIXSTOWE : Suffolk : IP11 7RN : [REDACTED] :  
 Gooding Mr R : [REDACTED] : IPSWICH : IP1 6AE : [REDACTED] :  
 Hebbs Mr R : [REDACTED] : Little Glemham : WOODBRIDGE : Suffolk : IP13 OBA :  
 Wickham Mkt. :  
 Holloway Mr S G : [REDACTED] : IPSWICH : IP4 2ES : [REDACTED] :  
 Krailing Mr A : [REDACTED] : Kirton : IPSWICH : IP10 OPN : [REDACTED] :  
 Lamond Mr D C : [REDACTED] : Falkenham Road : Kirton : IPSWICH : IP10 OPP :  
 :  
 Laurie Mr M E : [REDACTED] : Walton : FELIXSTOWE : Suffolk : IP11 9EA :  
 :  
 Markham Mr R : [REDACTED] : IPSWICH : IP3 8HB :  
 Maund Mr V C : [REDACTED] : IPSWICH : IP3 9NL : [REDACTED] :  
 Munford Mr C : [REDACTED] : IPSWICH : IP3 8QZ : [REDACTED] :  
 Newman Mr R : [REDACTED] : FELIXSTOWE : Suffolk : IP11 9DY : [REDACTED] :  
 :  
 Nice Mr C : [REDACTED] : FELIXSTOWE : Suffolk : IP11 7HU :  
 Nicholls Mr M J : [REDACTED] : Capel : IPSWICH : IP9 2EX : [REDACTED] :  
 Payne Mr D : [REDACTED] : Wickham Market : WOODBRIDGE : Suffolk :  
 IP13 OSD : [REDACTED] :  
 Radley Mr C F : [REDACTED] : Mildway Road : STEVENAGE : Herts : SG1 5TA :  
 :  
 Randle Miss D M : [REDACTED] : IPSWICH : IP4 5SG : [REDACTED] :  
 Sims Mr E W F : [REDACTED] : IPSWICH : IP1 4HA : [REDACTED] :  
 Smith Mr A J : [REDACTED] : IPSWICH : IP2 9ES : [REDACTED] :  
 Stow Mr M : [REDACTED] : IPSWICH : IP4 3NH : [REDACTED] :  
 Taylor Mr N : [REDACTED] : Walton : FELIXSTOWE : Suffolk : IP11 9BE :  
 :  
 Thurlow Mr A : [REDACTED] : IPSWICH : IP1 6DB : [REDACTED] :  
 Townsend Mr R : [REDACTED] : STEVENAGE : Herts : [REDACTED] :  
 Wilkes Mr V : [REDACTED] : IPSWICH : IP1 6DU : [REDACTED] :  
 Wright Mr N : [REDACTED] : Bucklesham : IPSWICH : IP10 ODY : [REDACTED] :  
 :  
 Wyard Mr M : [REDACTED] : IPSWICH : IP4 3AJ :  
 Young Mr R W R : [REDACTED] : BURY St.EDMUNDS : Suffolk : IP33 3QL :