

KIC 008907597

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008907597-01	OBS	No	2.627983	132.883758	2.4	1.232	9.2	0.3	2.56	5971	0.56	4629.35
008907597-02	OBS	No	2.625945	132.490971	29.7	8.160	8.7	6.1	2.56	5971	1.43	4634.14
008907597-03	OBS	No	2.626469	132.994189	58.8	5.270	9.5	10.1	2.56	5971	2.33	4632.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008907597-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008907597-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008907597-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

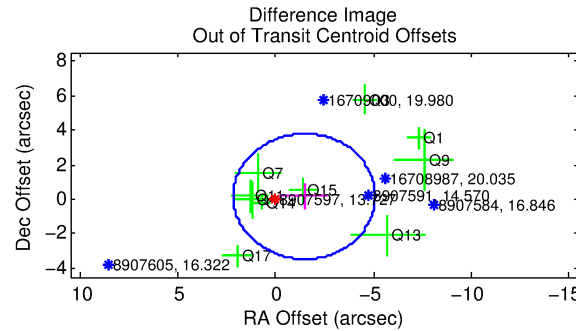
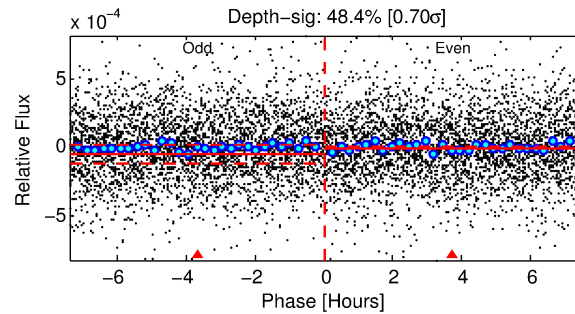
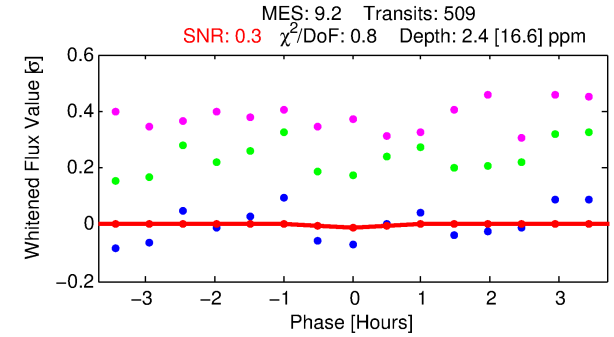
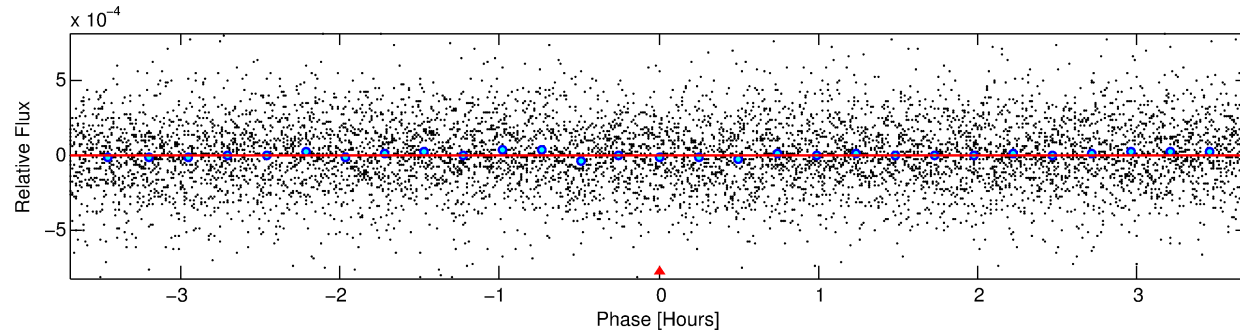
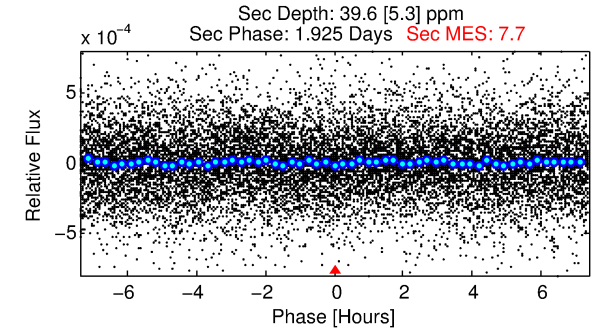
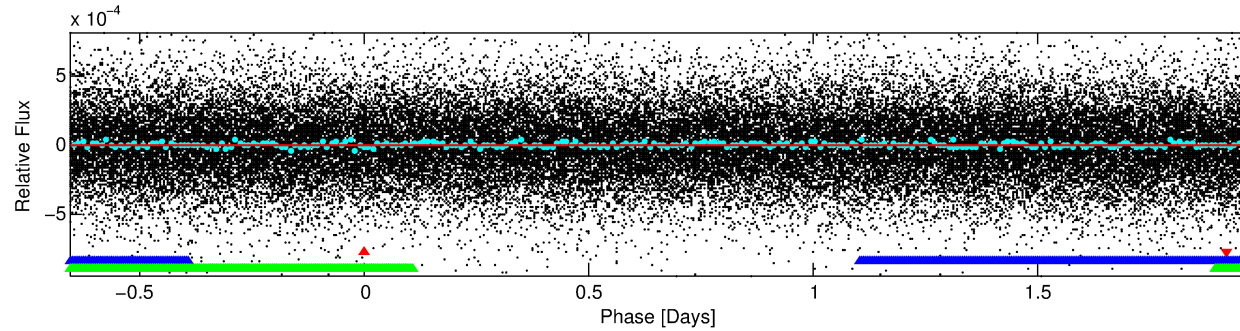
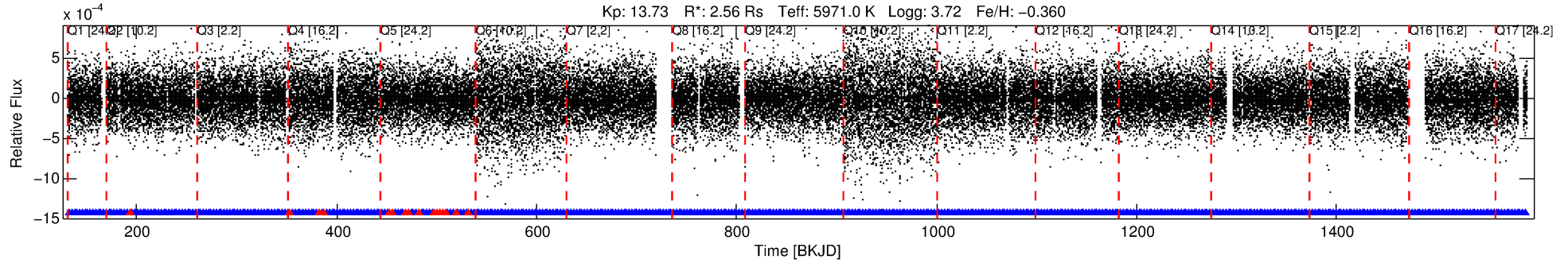
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008907597-01

No Significant Match Found

DV One-Page Summary

KIC: 8907597 Candidate: 1 of 3 Period: 2.628 d



DV Fit Results:

Period = 2.62798 [0.00043] d
Epoch = 132.8838 [0.0701] BKJD
Rp/R* = 0.0020 [0.0186]
a/R* = 2.70 [147.91]
b = 0.99 [1.29]
Seff = 4629.35 [5135.22]
Teq = 2103 [583] K
Rp = 0.56 [5.20] Re
a = 0.0401 [0.0258] AU
Ag = 112.75 [2100.02] [0.05σ]
Teffp = 10597 [49259] K [0.17σ]

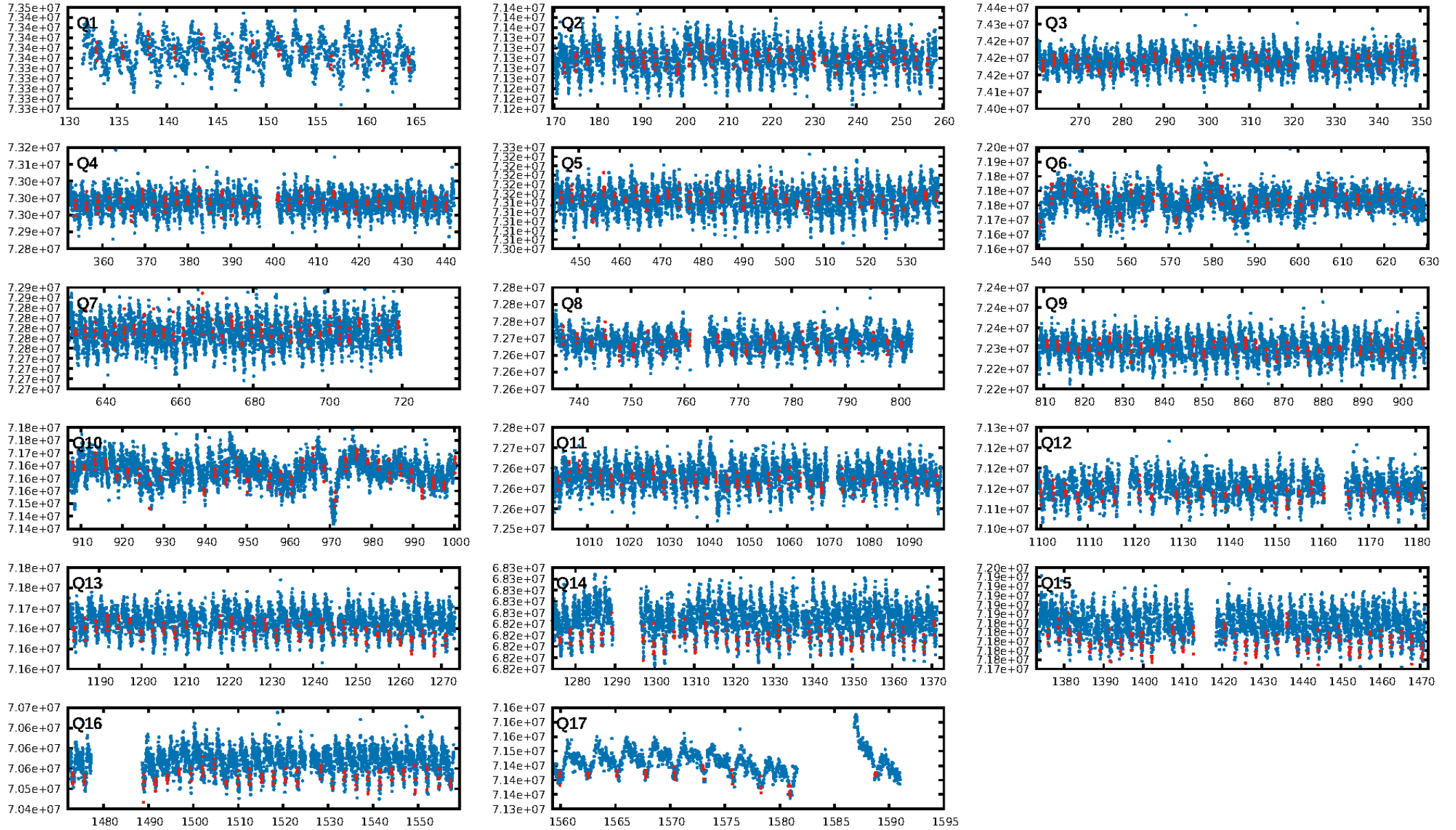
DV Diagnostic Results:

ShortPeriod-sig: 0.5% [0.01σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.00e-12
RollingBand-fgt: 0.97 [470/486]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.465 arcsec [1.21σ]
KicOffset-rm: 1.484 arcsec [1.23σ]
OotOffset-st: 1/4/1/4 [10]
KicOffset-st: 1/4/1/4 [10]
DiffImageQuality-fgm: 0.20 [2/10]
DiffImageOverlap-fno: 0.47 [8/17]

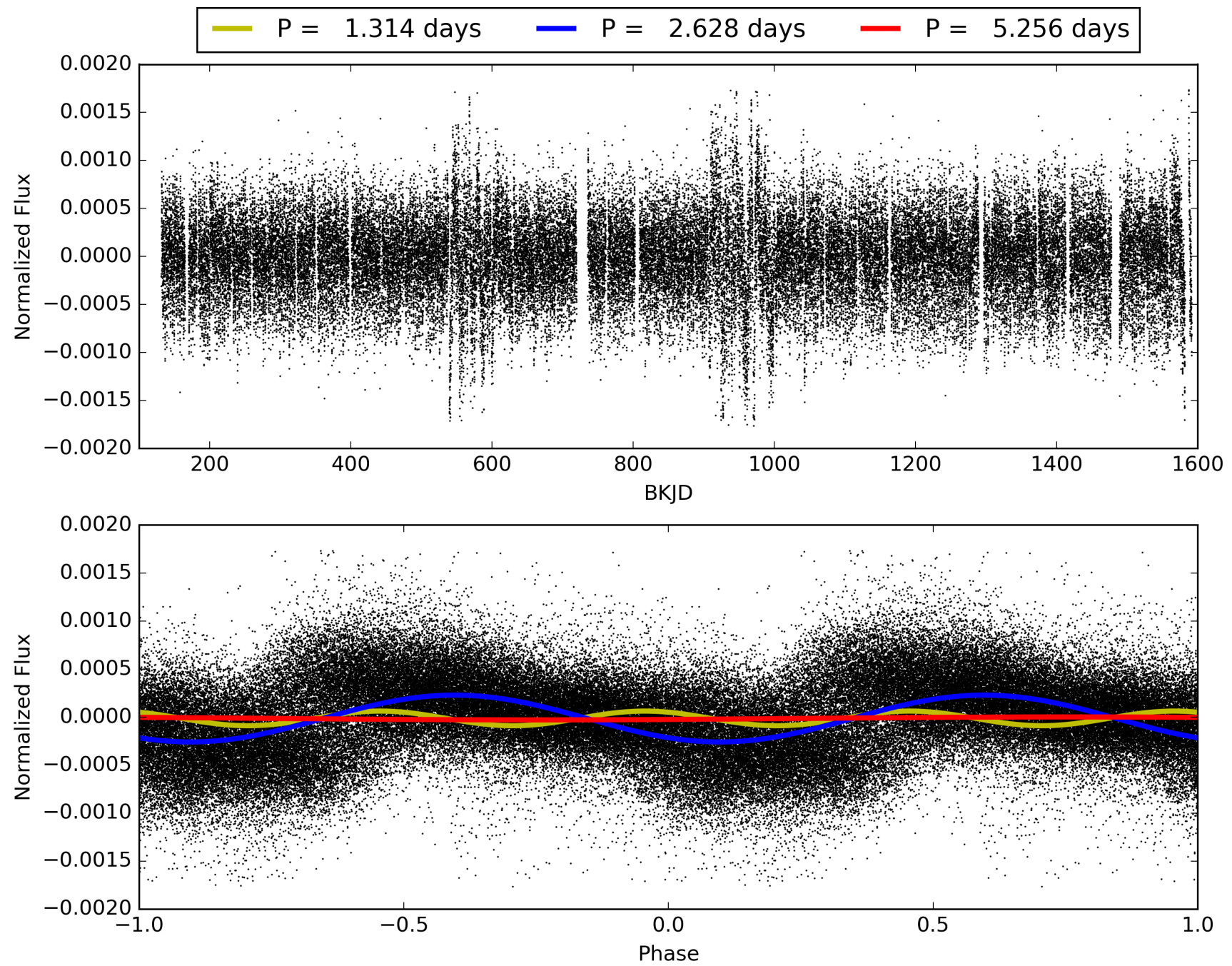
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:15:26 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008907597-01, PDC Light Curves

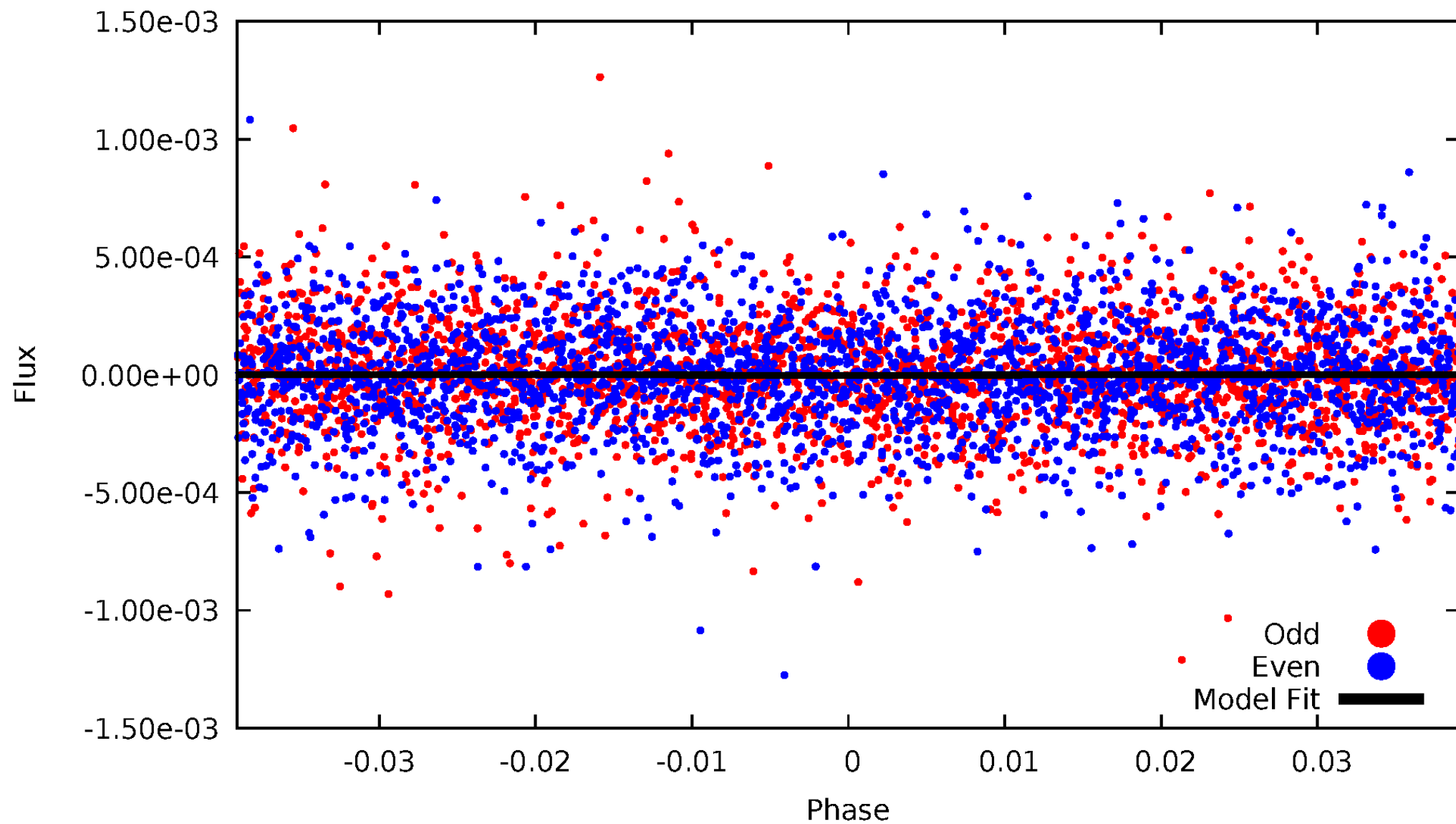


TCE 008907597-01



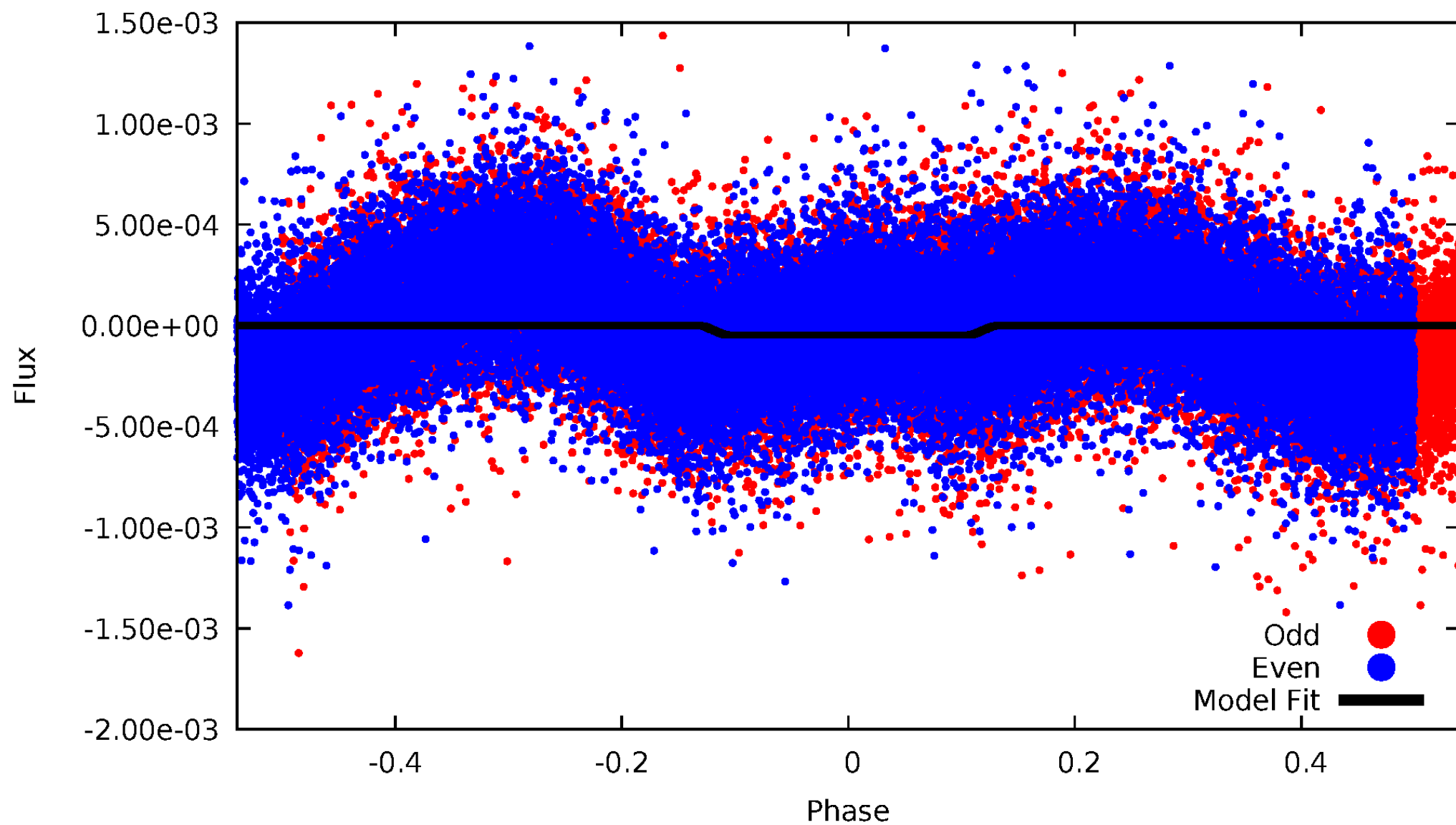
DV Odd/Even

TCE 008907597-01



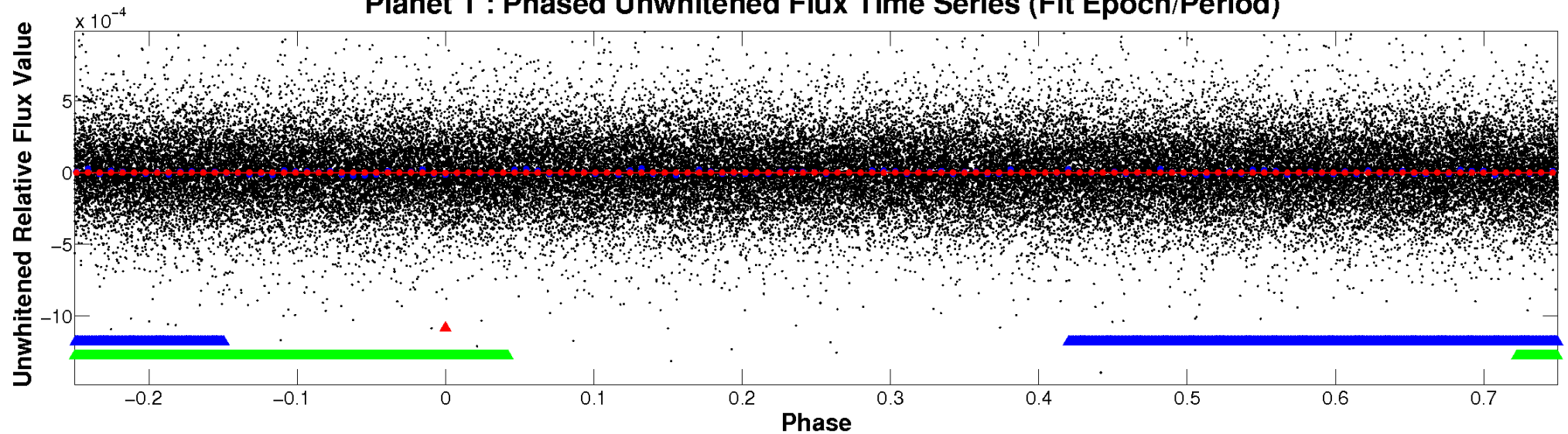
ALT Odd/Even

TCE 008907597-01

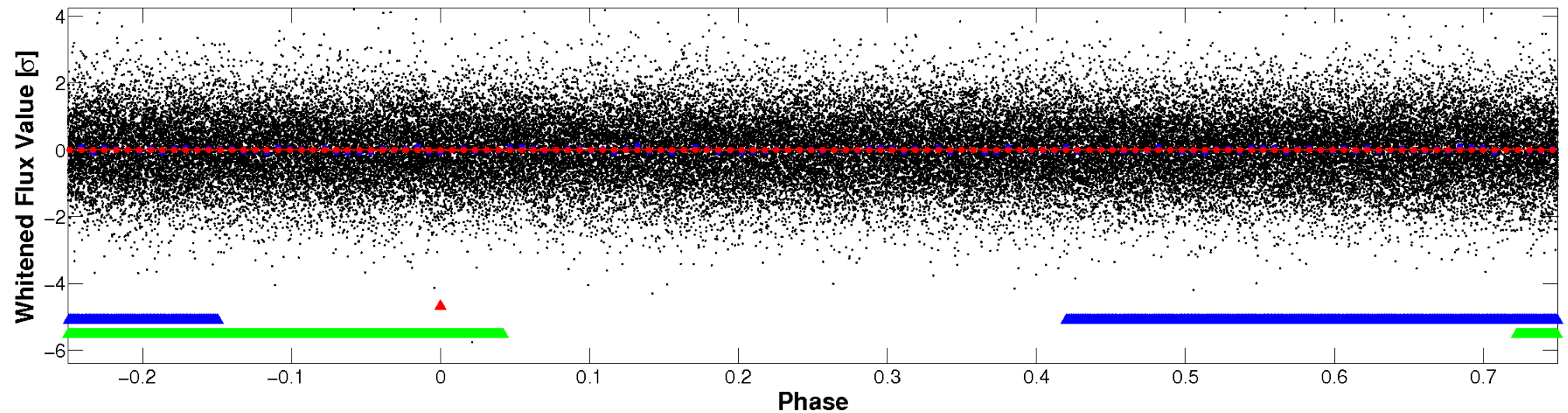


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

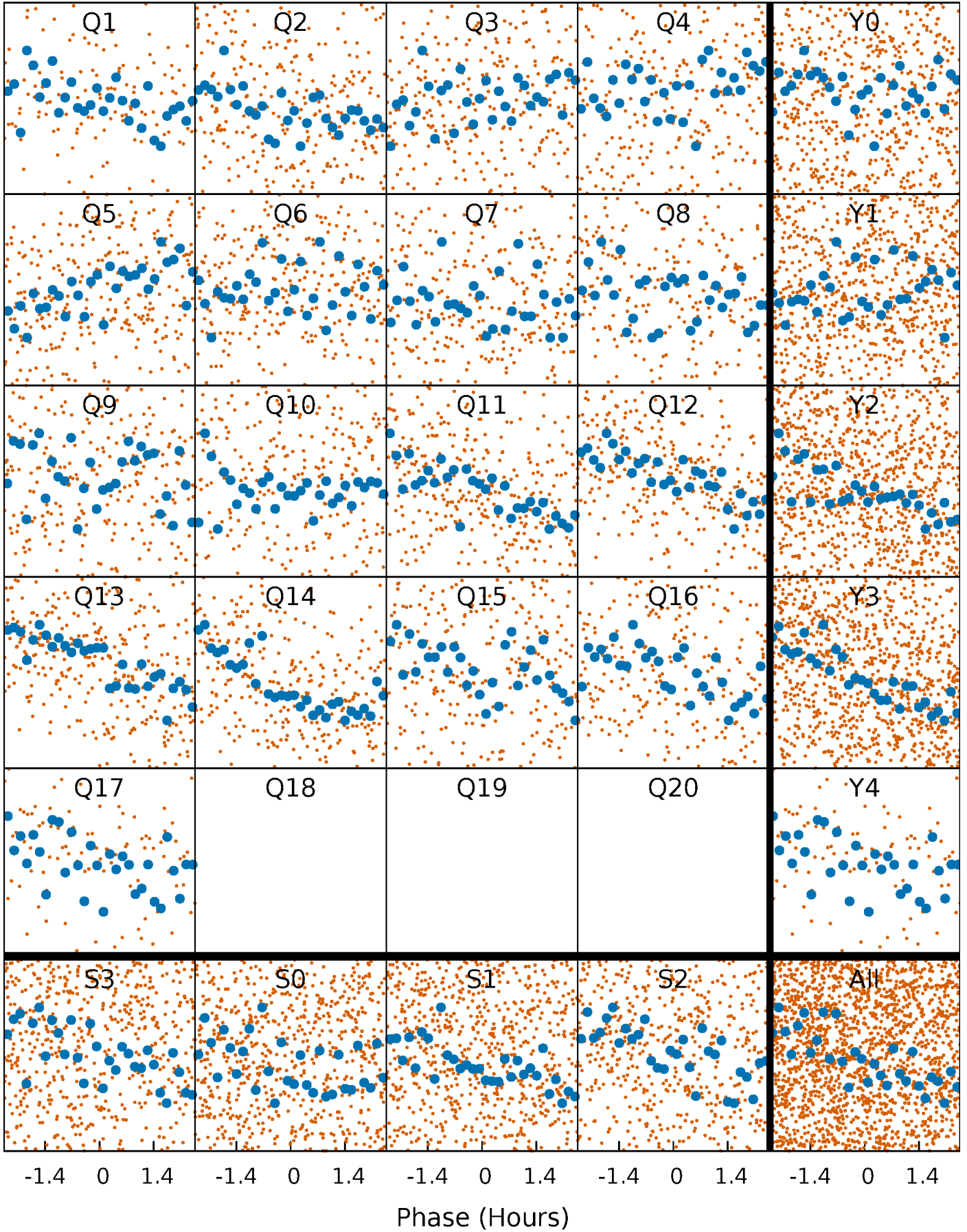


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



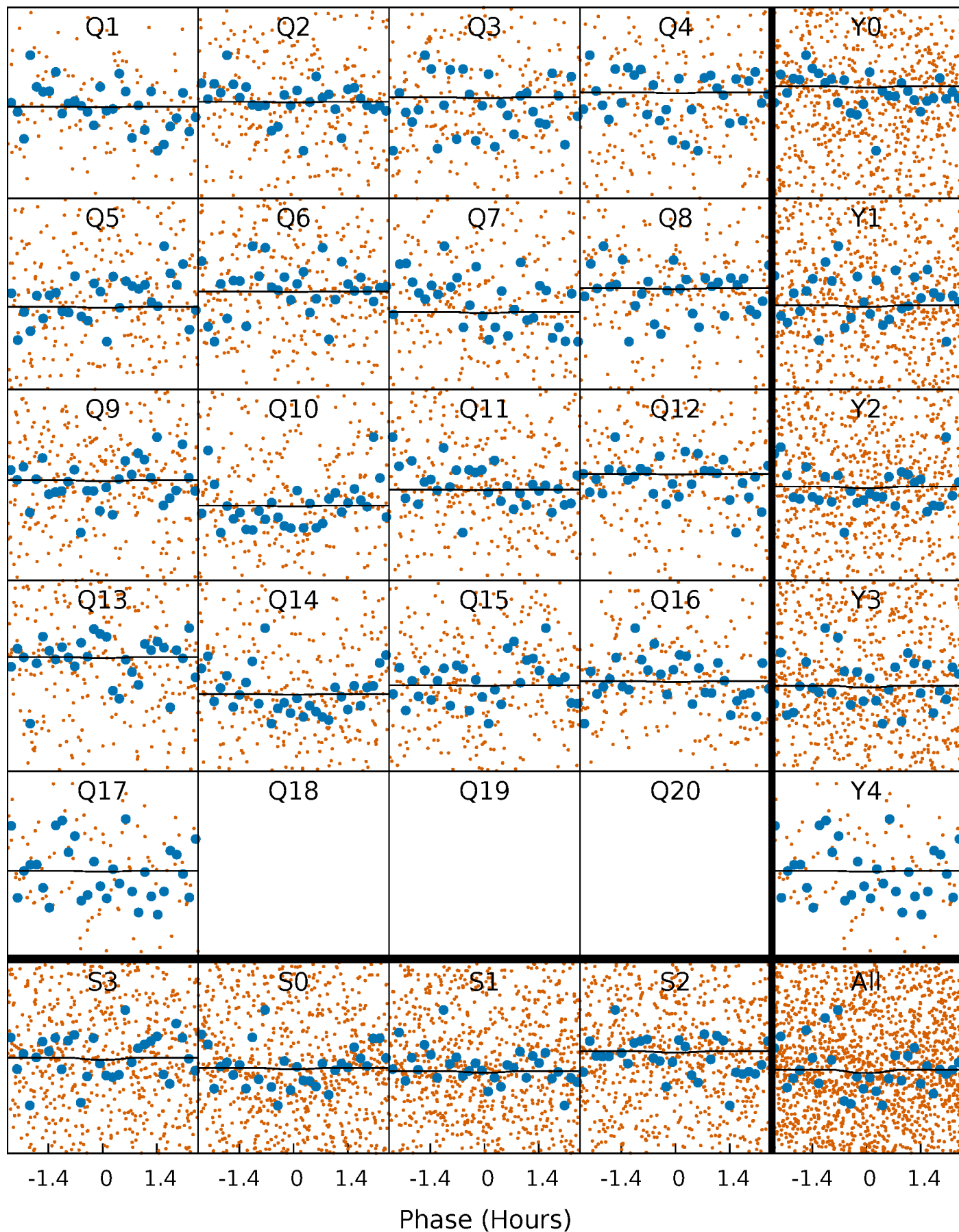
PDC Quarter-Phased Transit Curves

TCE 008907597-01 P= 2.627983 Days $T_0=132.883758$ (BKJD)



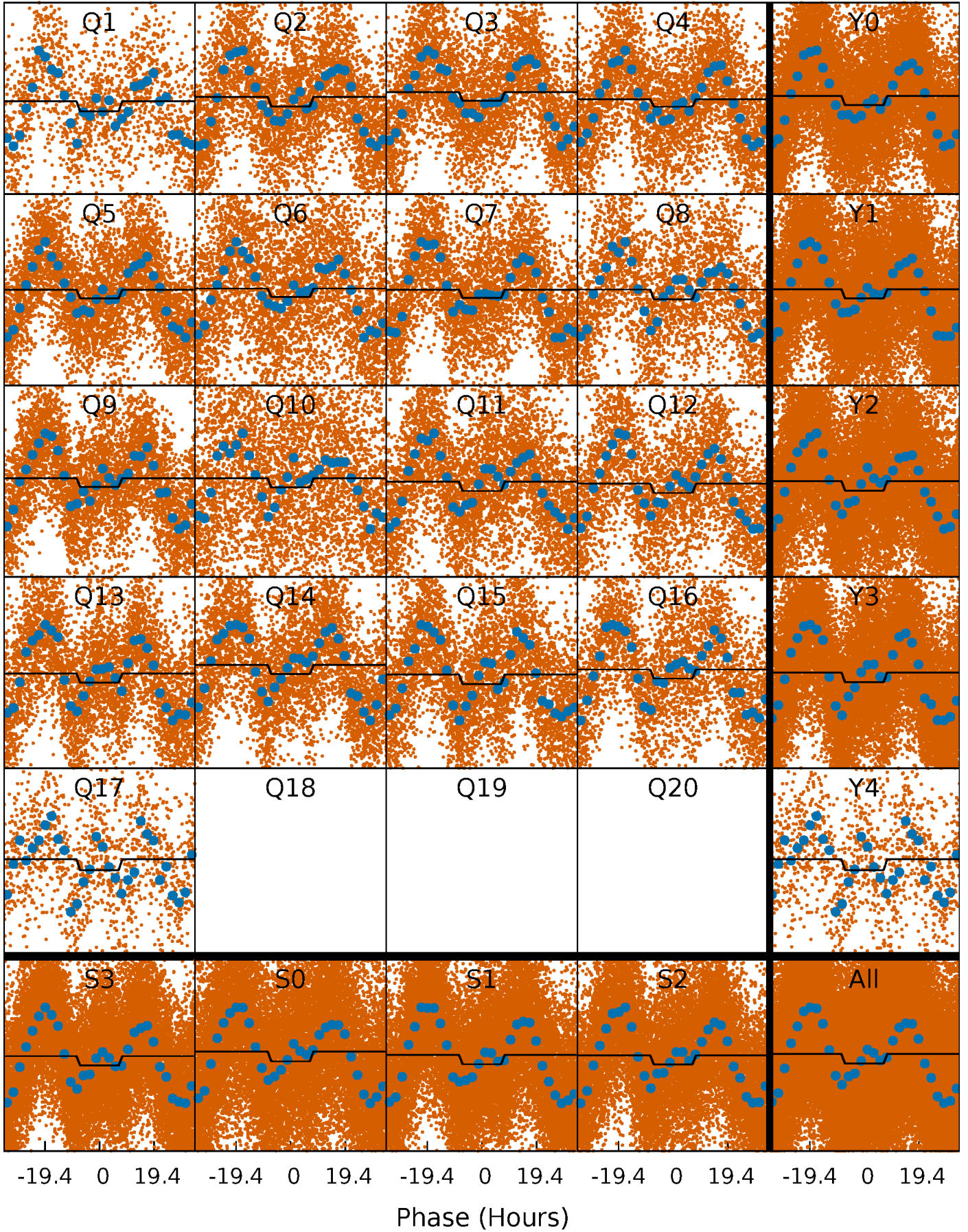
DV Quarter-Phased Transit Curves

TCE 008907597-01 P= 2.627983 Days $T_0=132.883758$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

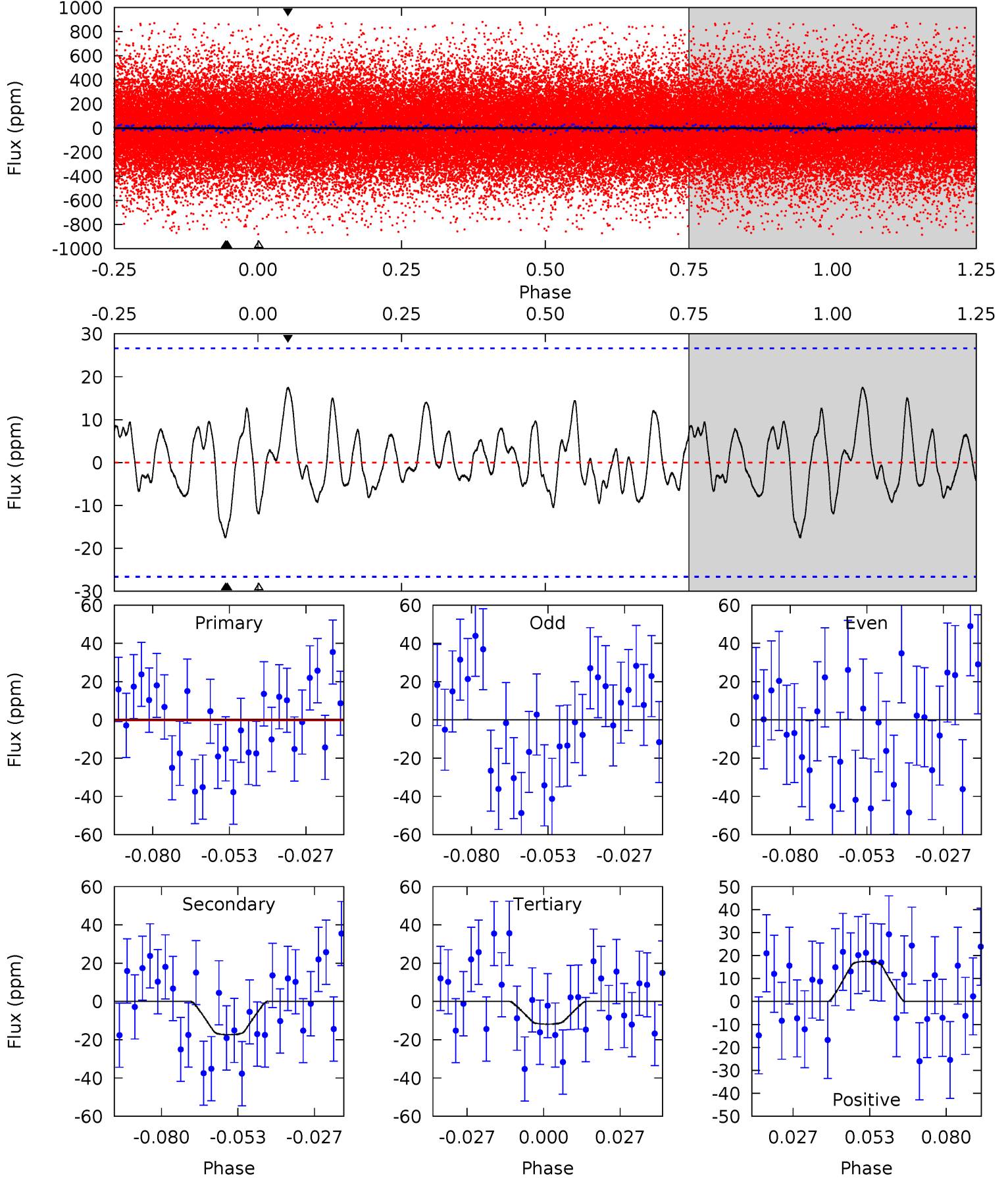
TCE 008907597-01 P= 2.626421 Days $T_0=132.690999$ (BKJD)



DV Model-Shift Uniqueness Test

008907597-01, P = 2.627983 Days, E = 130.255775 Days

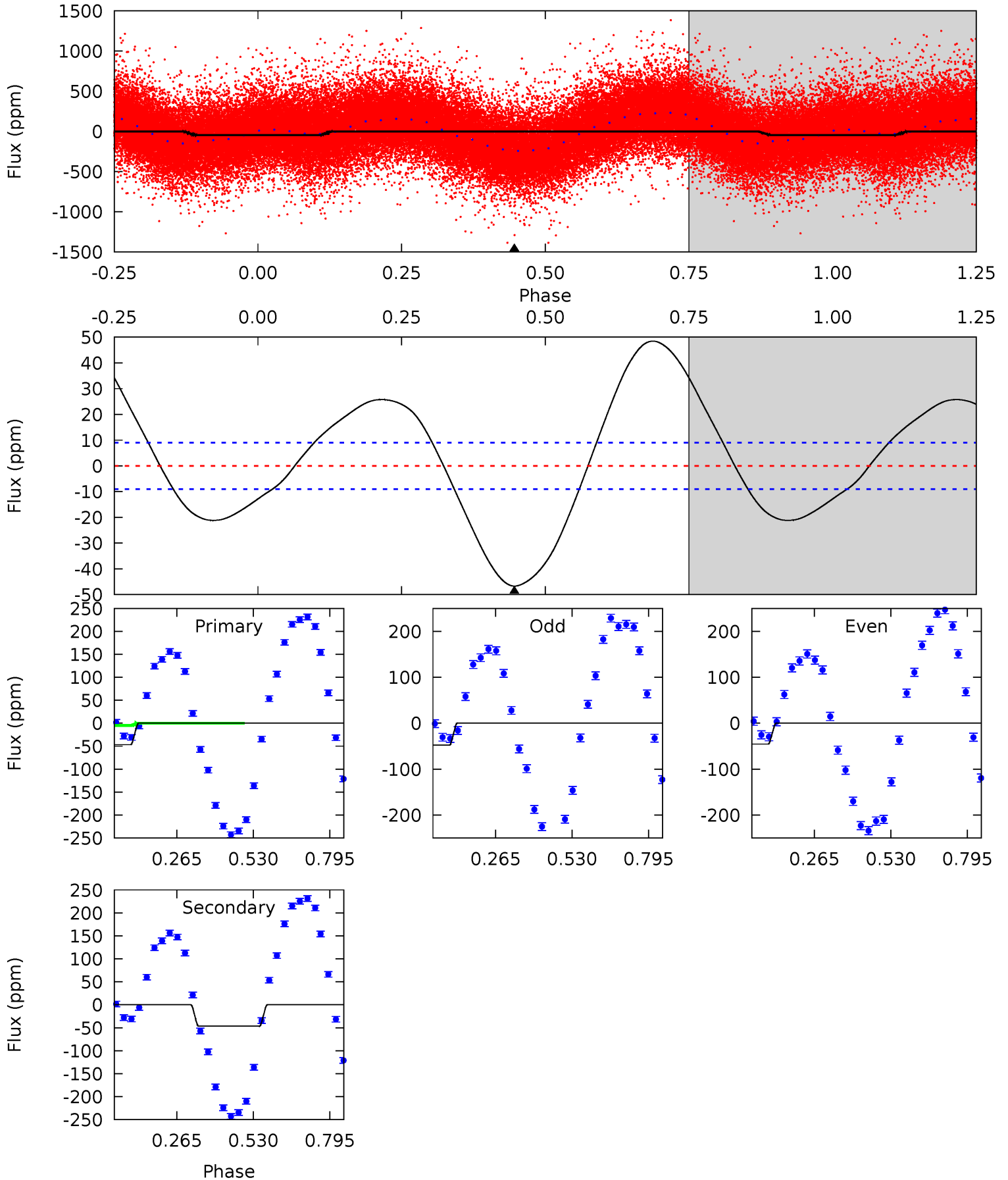
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.87	3.16	2.16	3.17	4.84	2.22	1.10	0.71	-0.30	1.01	-0.01	0.23	0.77	0.50	0.04



Alt Model-Shift Uniqueness Test

008907597-01, P = 2.626421 Days, E = 130.064578 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	22.6	0	0	4.36	1.11	9.22	22.6	22.6	22.6	22.6	0.56	0.96	0.51	18.9



Stellar Parameters For KIC 008907597

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5971^{+209}_{-188}	$3.718^{+0.672}_{-0.158}$	$-0.360^{+0.350}_{-0.250}$	$2.558^{+0.525}_{-1.470}$	$1.247^{+0.185}_{-0.370}$	$0.105^{+1.009}_{-0.048}$
	+4%/-3%	+18%/-4%	+97%/-69%	+21%/-57%	+15%/-30%	+962%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008907597-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-17 ± 6	$3.00^{+3.87}_{-1.99}$	2876^{+258}_{-452}	3632^{+2275}_{-5476}	$1.521^{+13.202}_{-1.223}$
Alt.	-47 ± 2	$4.01^{+4.12}_{-2.74}$	2894^{+233}_{-427}	4058^{+2726}_{-991}	$2.579^{+22.683}_{-1.929}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

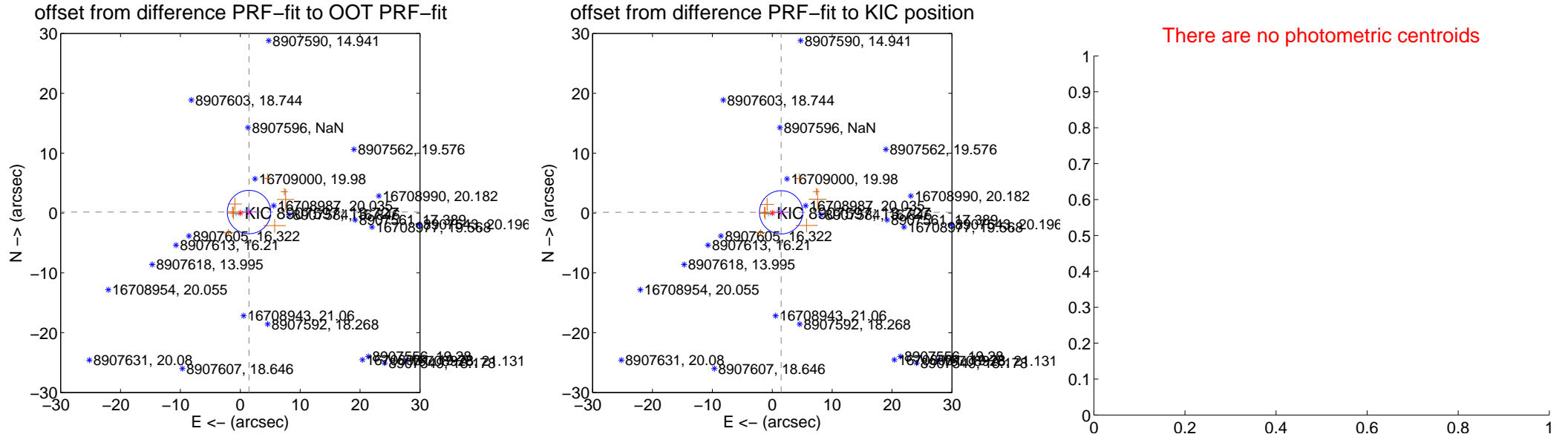
DV Centroid Data

Supplemental centroid analysis for 008907597-01. Kepler magnitude: 13.73. Transit SNR 0.27

There are 2 quarters with good PRF difference image offsets

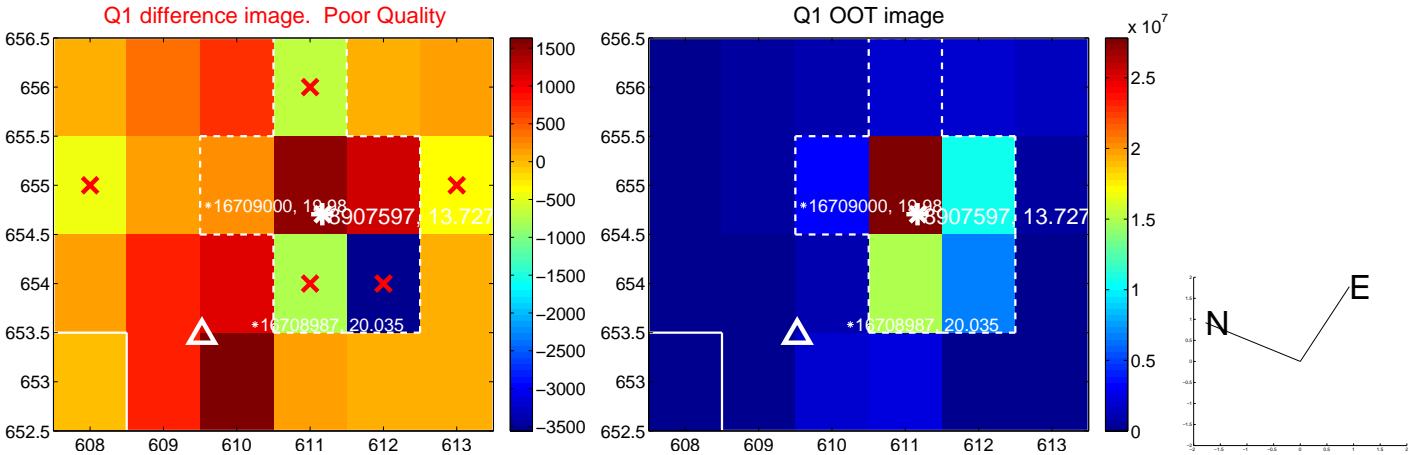
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.465 ± 1.209	1.21	-1.456 ± 1.214	0.159 ± 0.711
PRF-fit source offset from KIC position	1.484 ± 1.205	1.23	-1.480 ± 1.207	0.116 ± 0.706
photometric centroid source offset	—	—	—	—

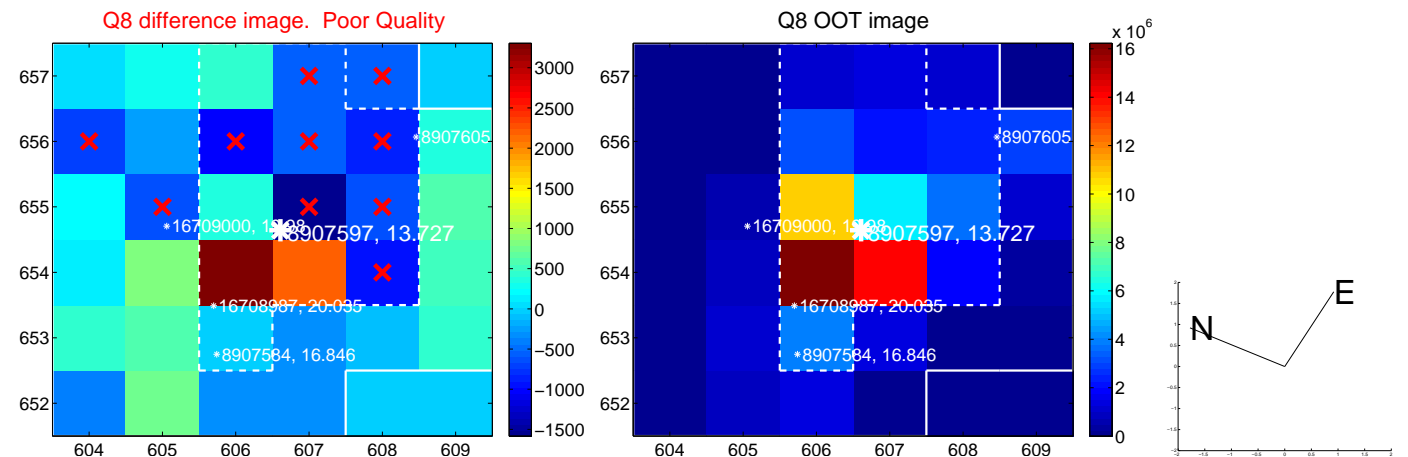
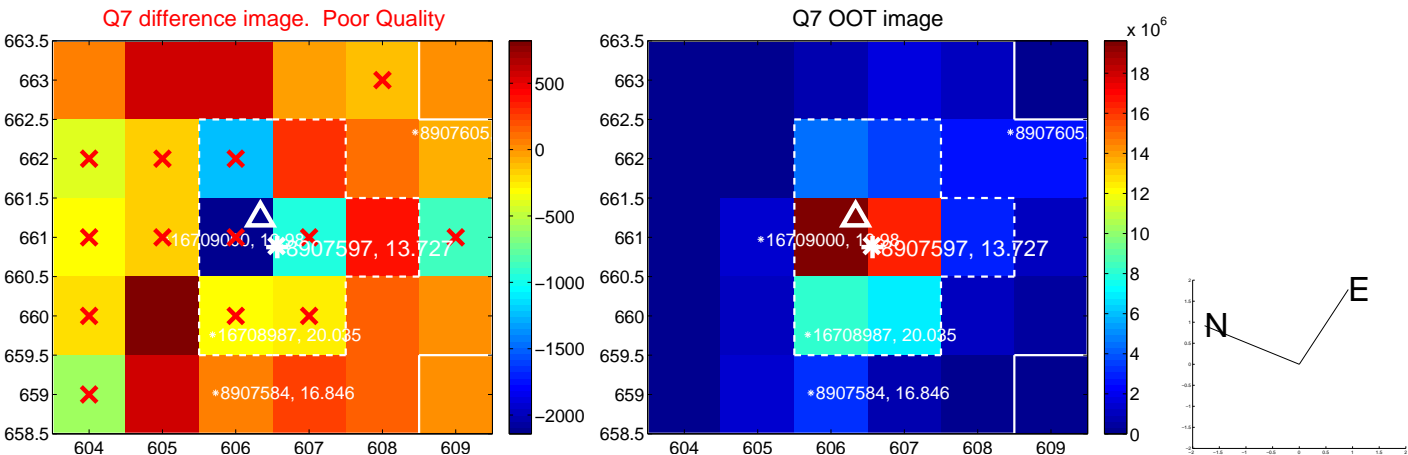
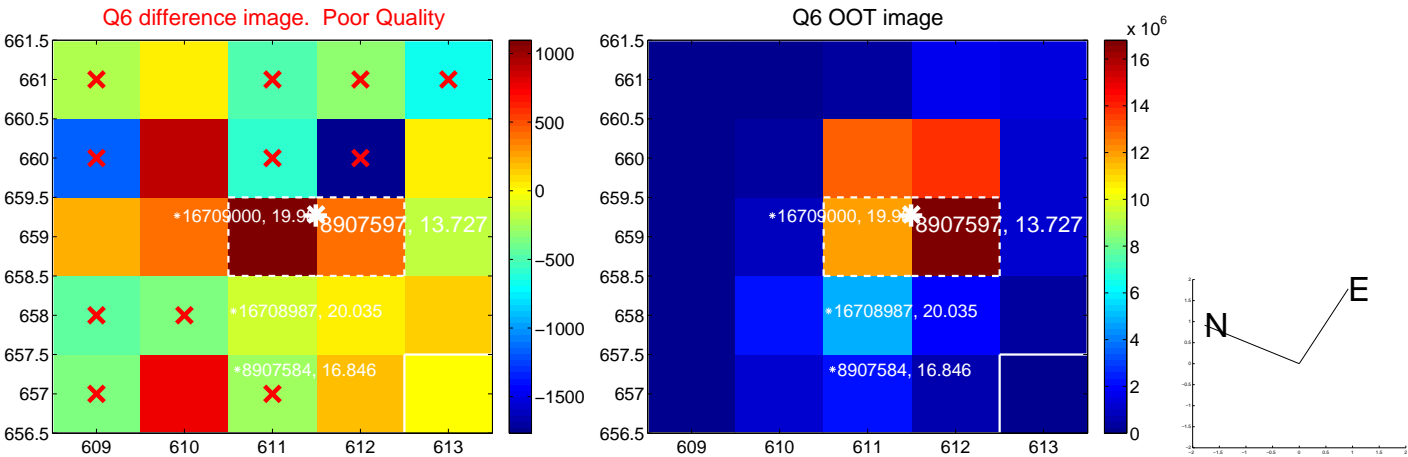
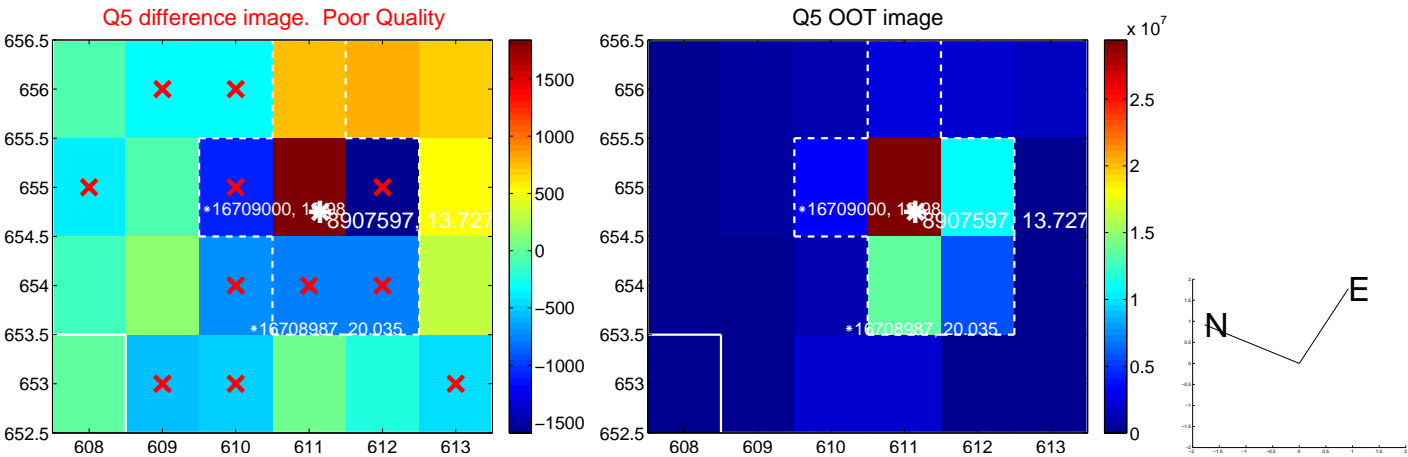


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

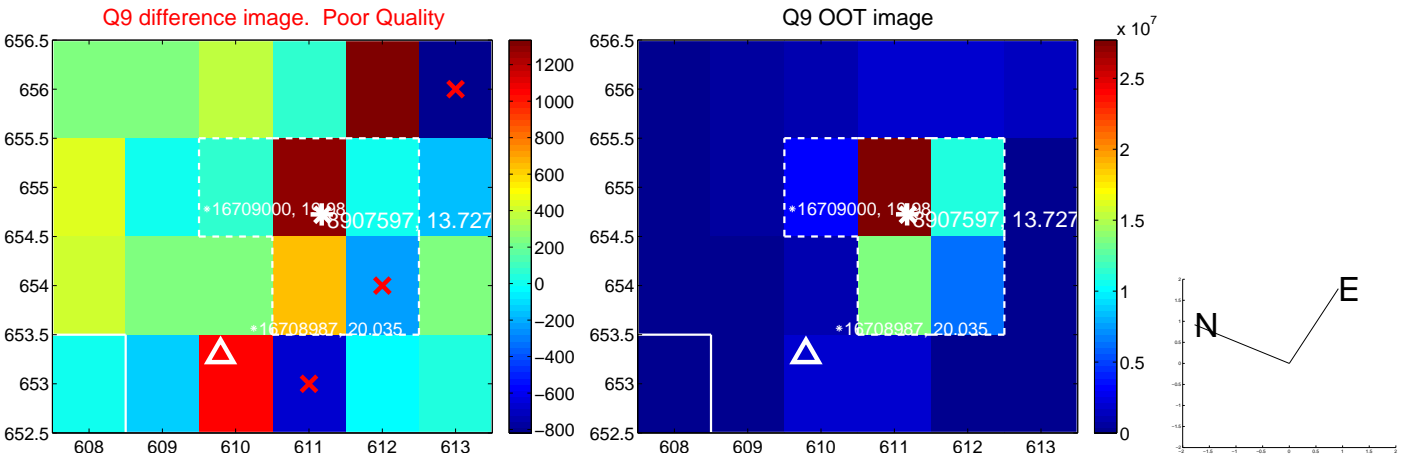
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



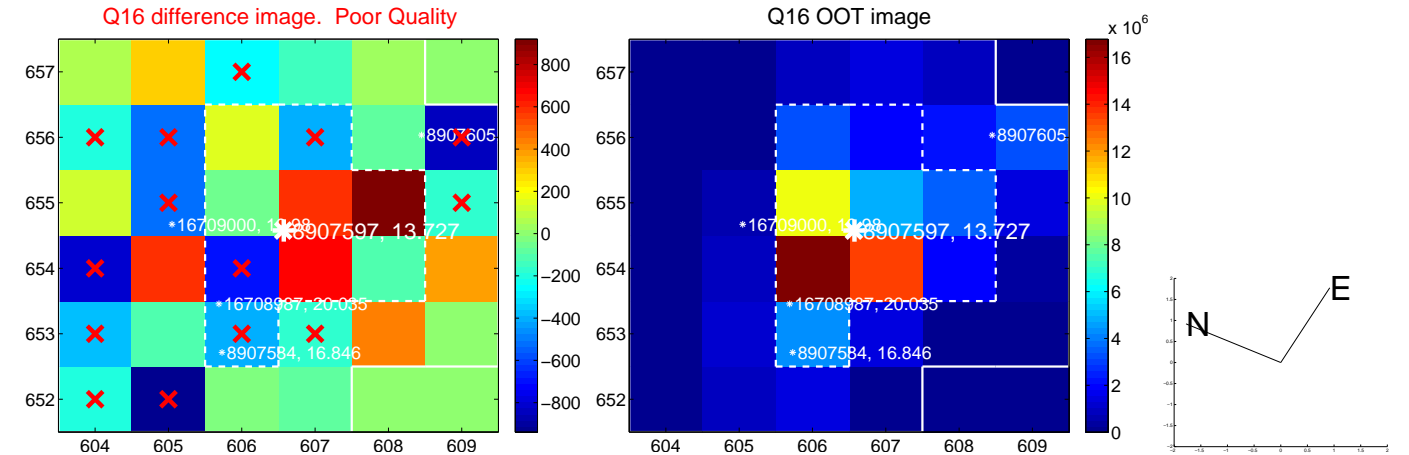
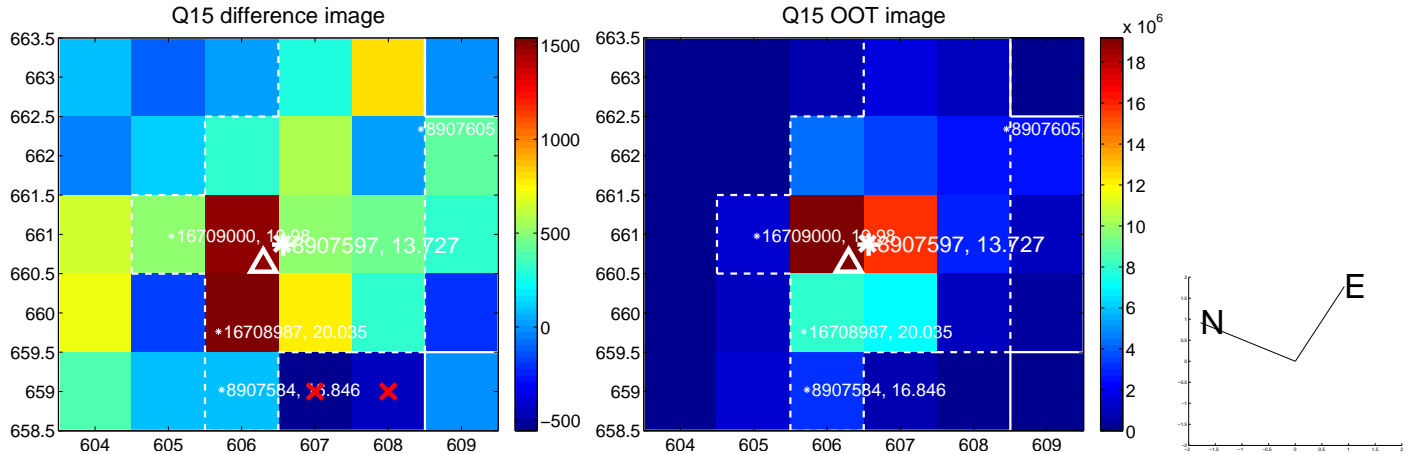
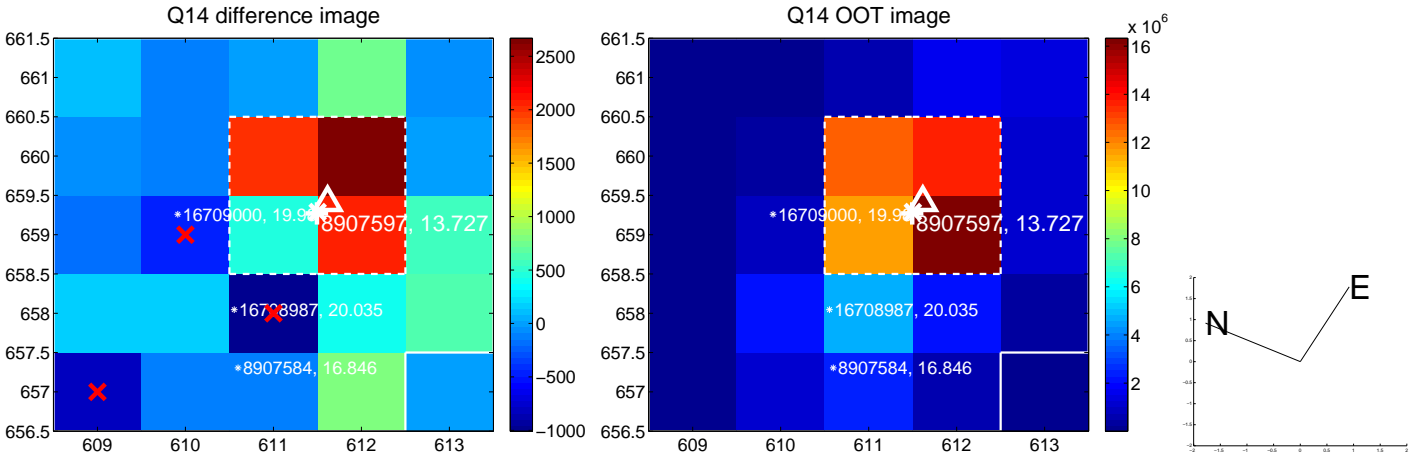
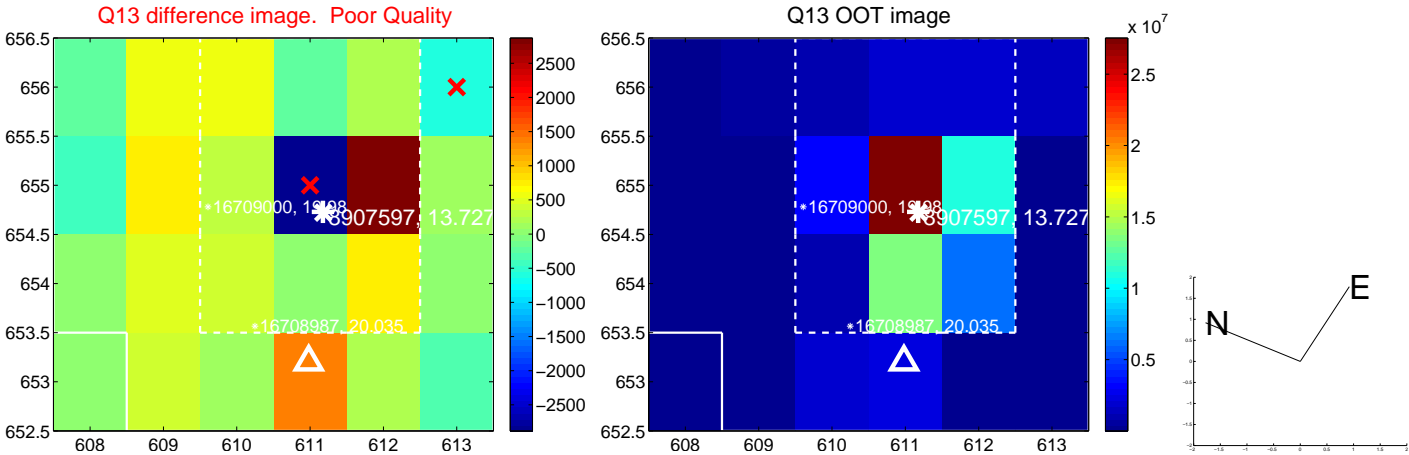
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



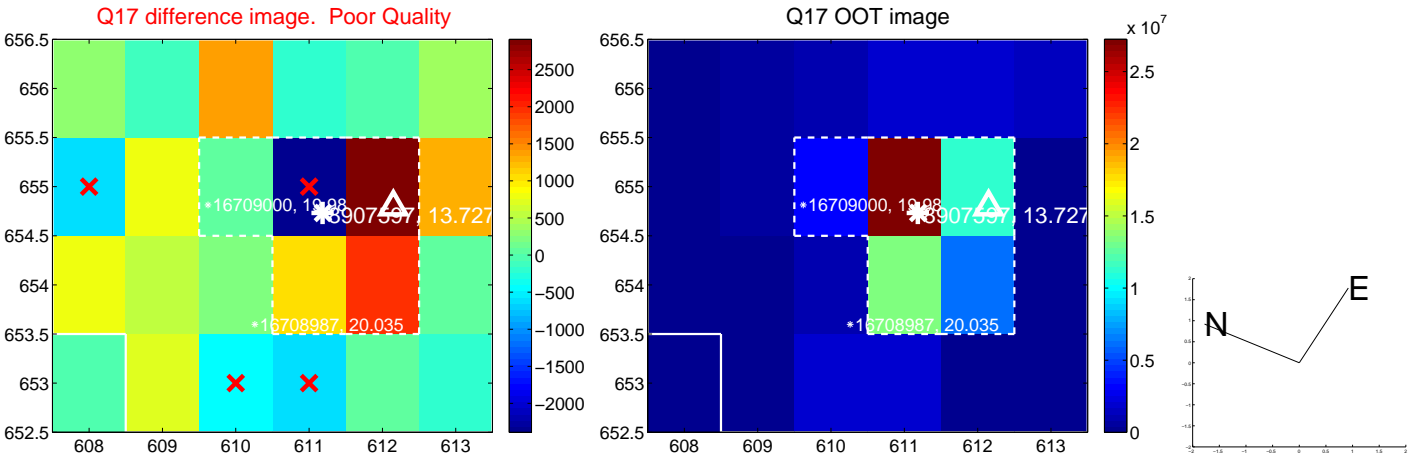
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



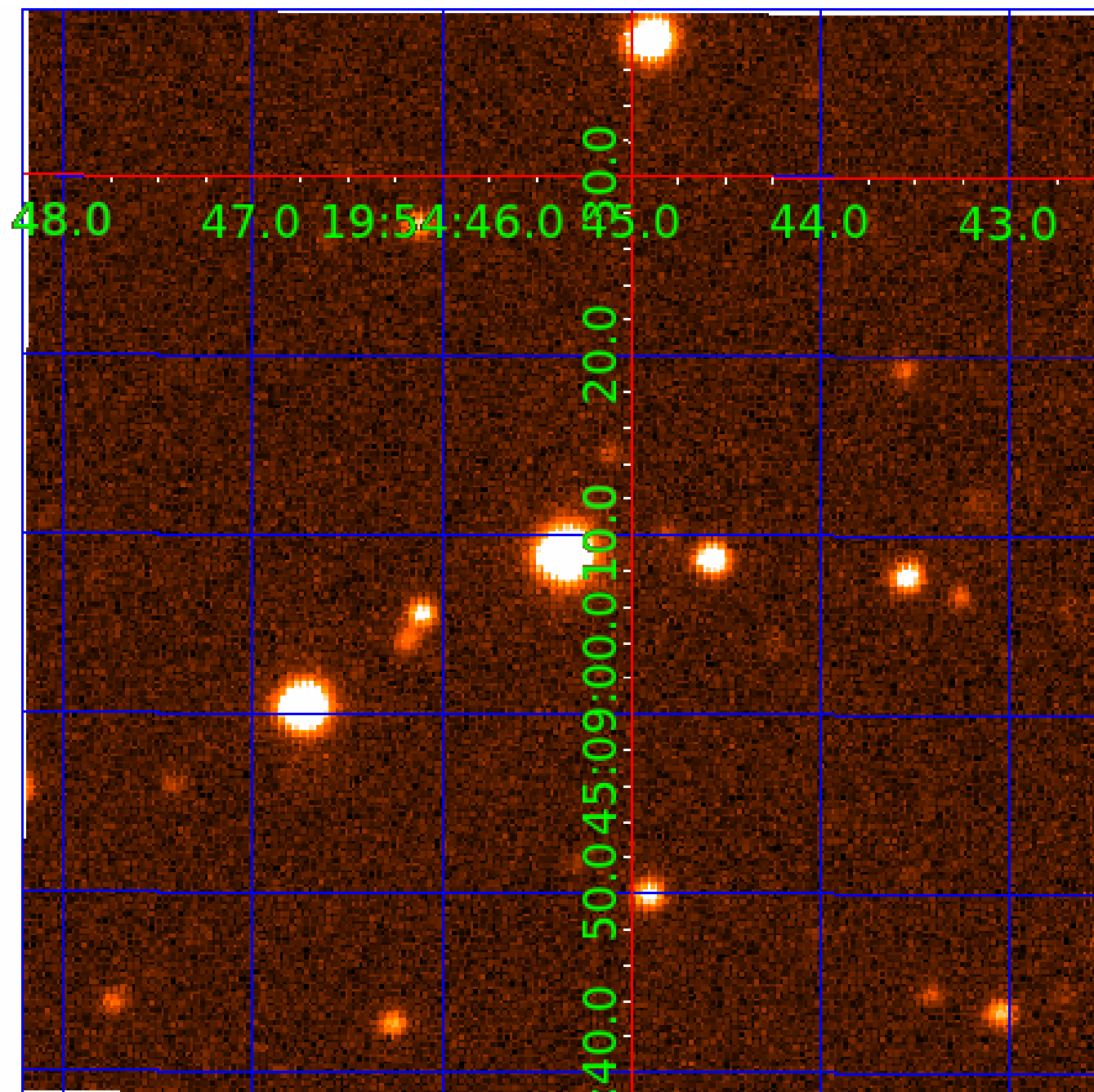
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 008907597

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008907597-01	OBS	No	2.627983	132.883758	2.4	1.232	9.2	0.3	2.56	5971	0.56	4629.35
008907597-02	OBS	No	2.625945	132.490971	29.7	8.160	8.7	6.1	2.56	5971	1.43	4634.14
008907597-03	OBS	No	2.626469	132.994189	58.8	5.270	9.5	10.1	2.56	5971	2.33	4632.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008907597-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008907597-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008907597-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

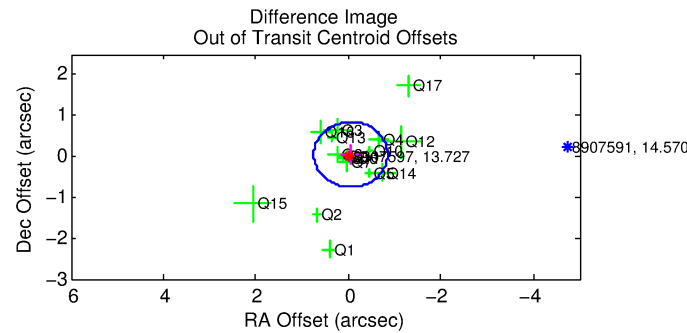
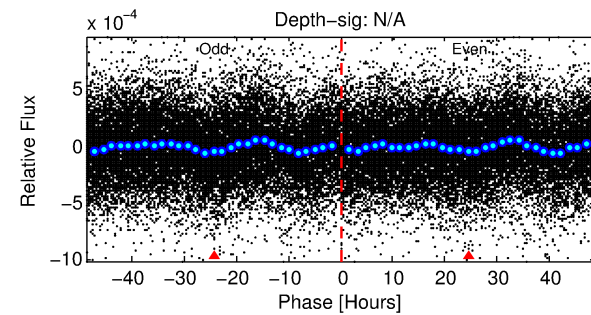
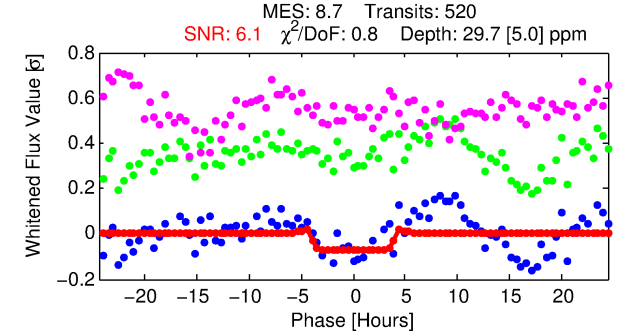
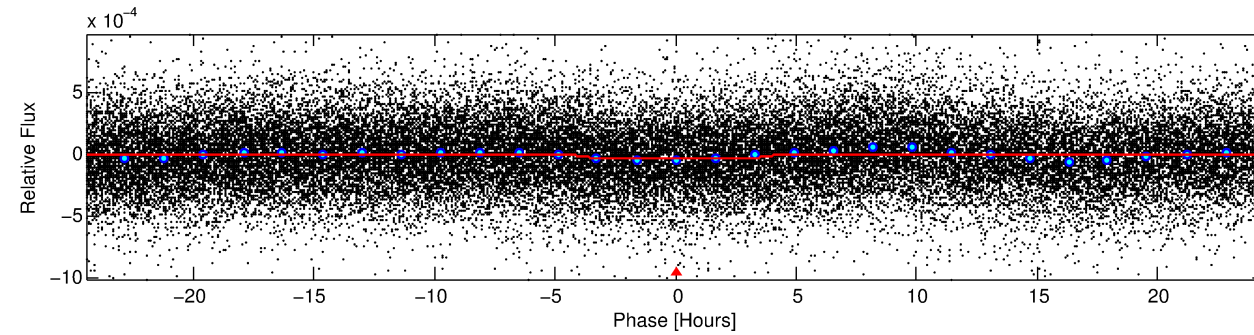
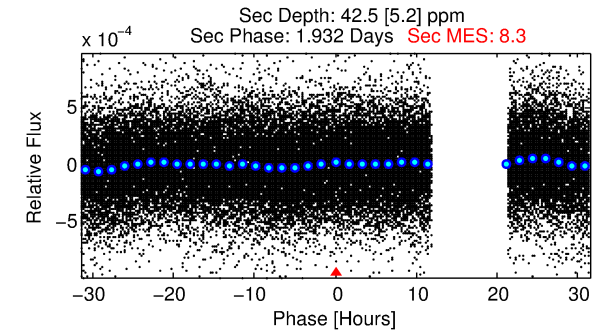
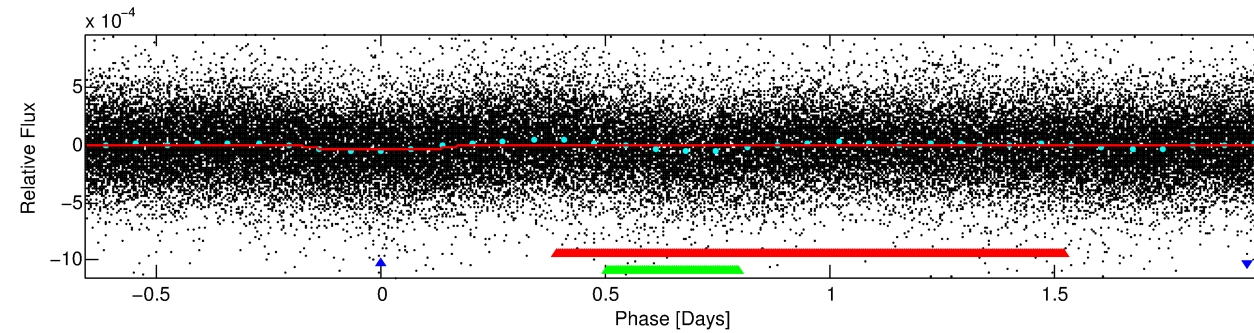
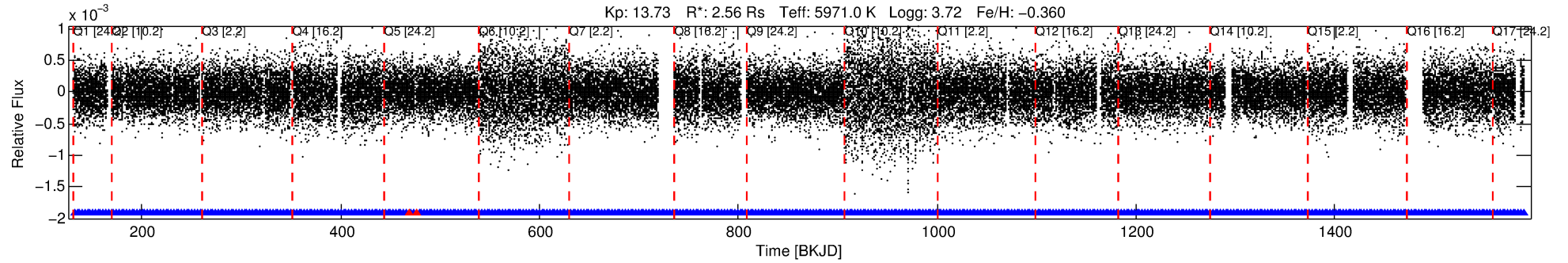
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008907597-02

No Significant Match Found

DV One-Page Summary

KIC: 8907597 Candidate: 2 of 3 Period: 2.626 d



DV Fit Results:

Period = 2.62594 [0.00004] d
Epoch = 132.4910 [0.0088] BKJD
Rp/R* = 0.0051 [0.0032]
a/R* = 2.26 [5.55]
b = 0.50 [4.57]
Seff = 4634.14 [5140.53]
Teff = 2104 [583] K
Rp = 1.43 [1.21] Re
a = 0.0401 [0.0258] AU
Ag = 18.29 [30.46] [0.57σ]
Teffp = 6727 [2115] K [2.11σ]

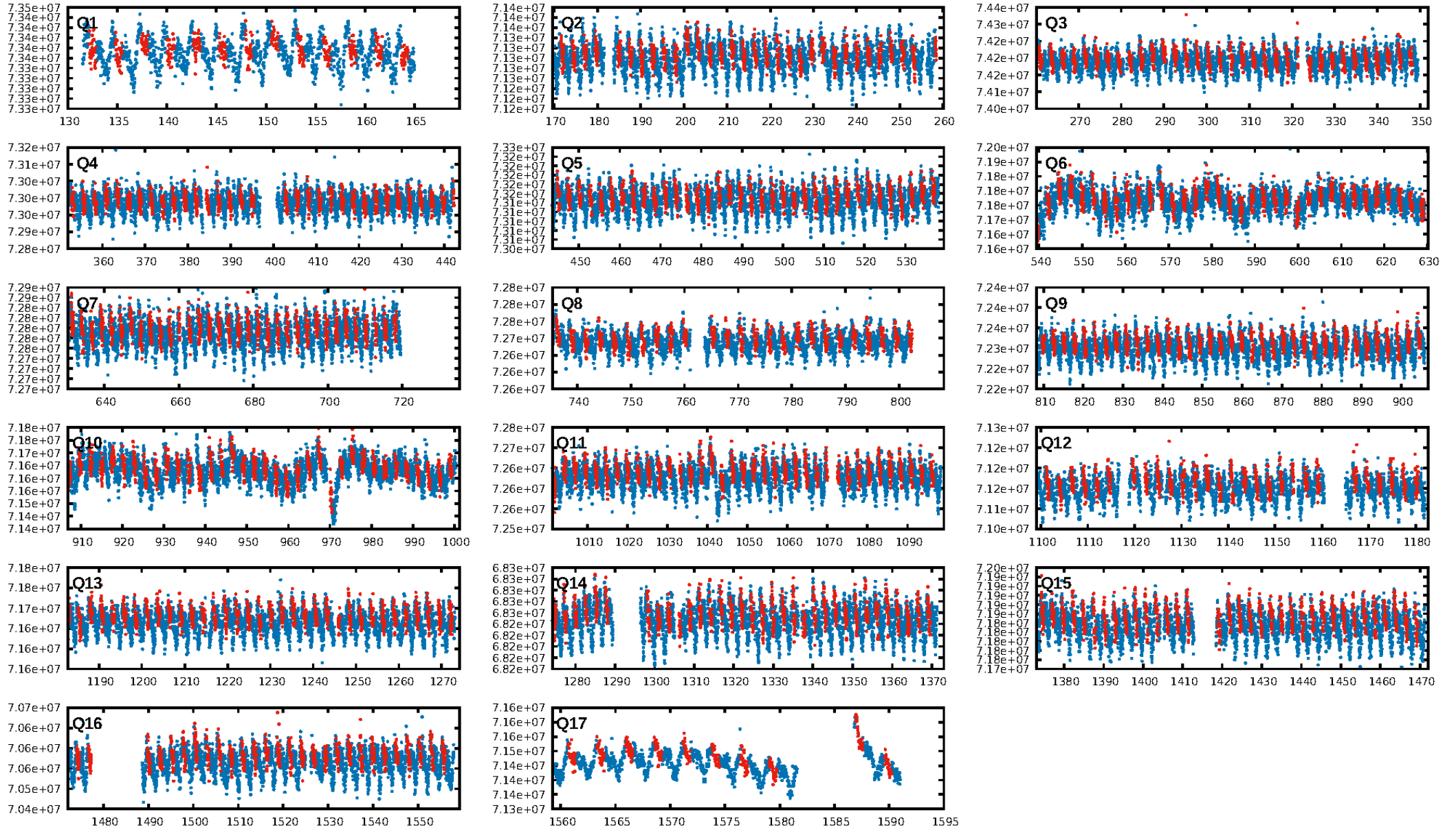
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.73e-11
RollingBand-fgt: 1.00 [495/497]
GhostDiagnostic-chr: 3.821
Centroid-sig: 93.7%
Centroid-so: 0.269 arcsec [0.24σ]
OotOffset-rm: 0.061 arcsec [0.23σ]
KicOffset-rm: 0.076 arcsec [0.31σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 0.24 [4/17]

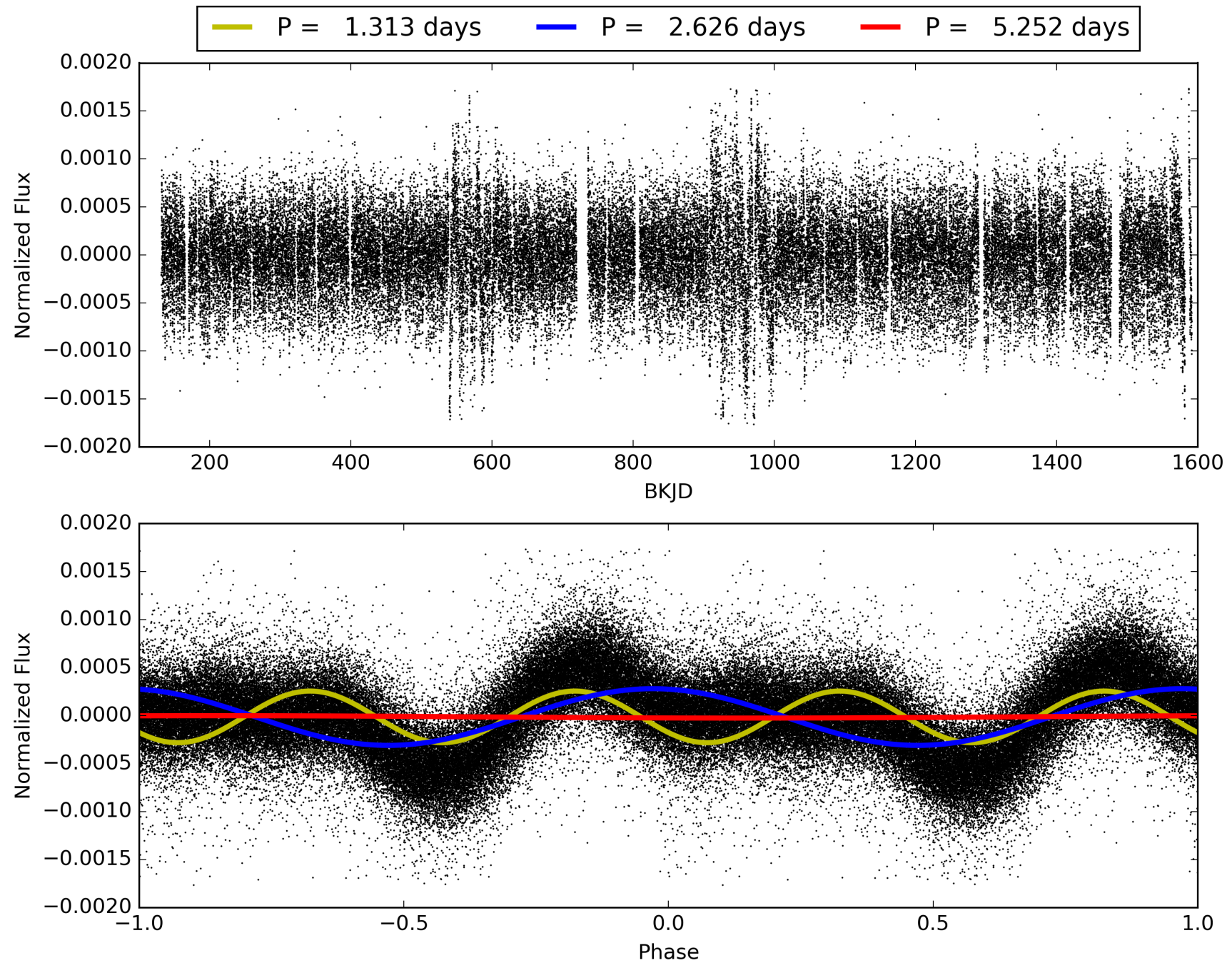
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:15:35 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008907597-02, PDC Light Curves

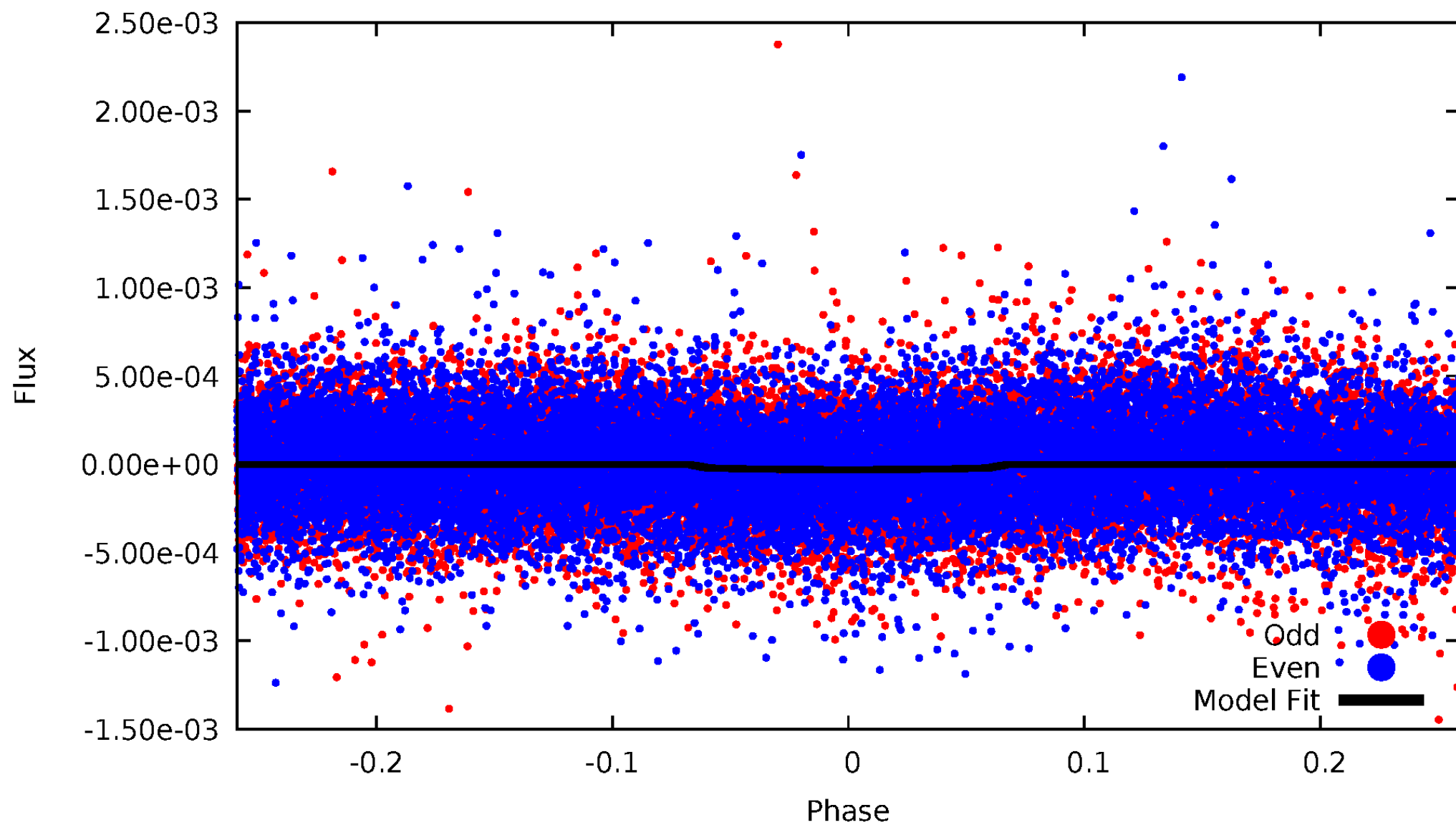


TCE 008907597-02



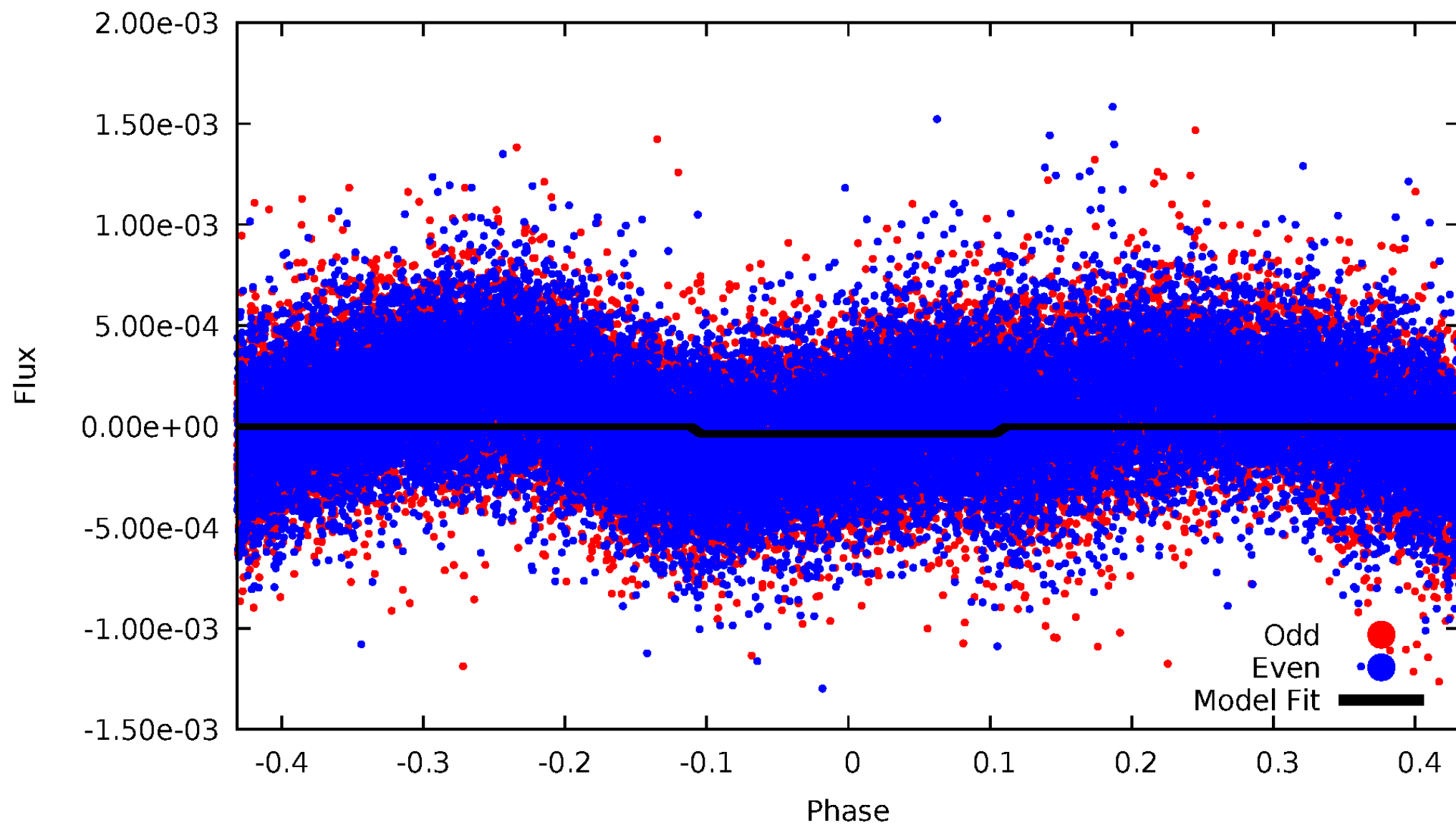
DV Odd/Even

TCE 008907597-02



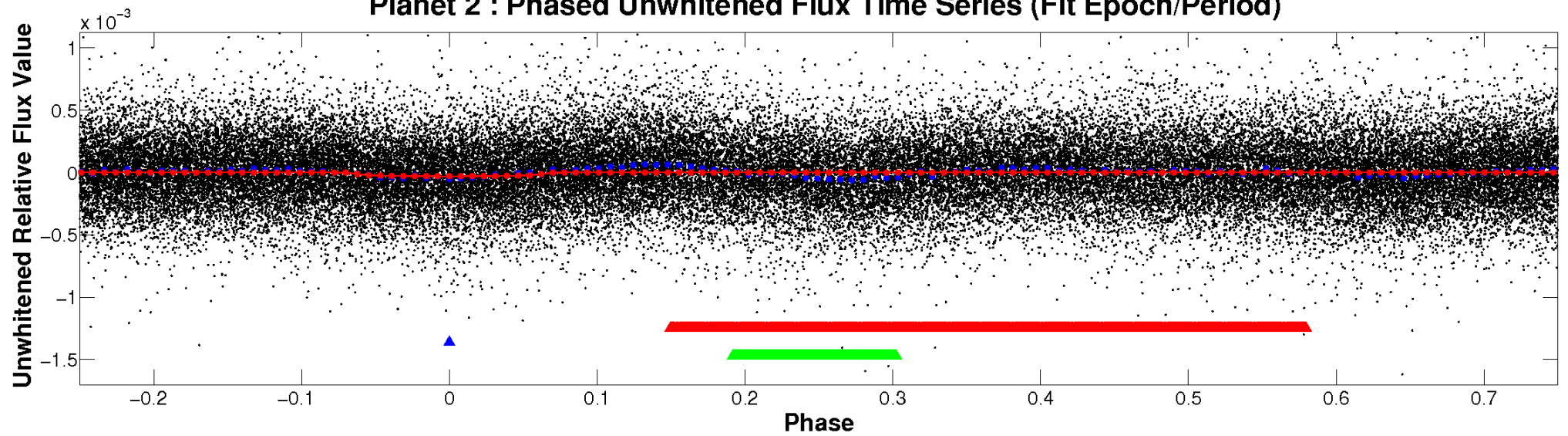
ALT Odd/Even

TCE 008907597-02

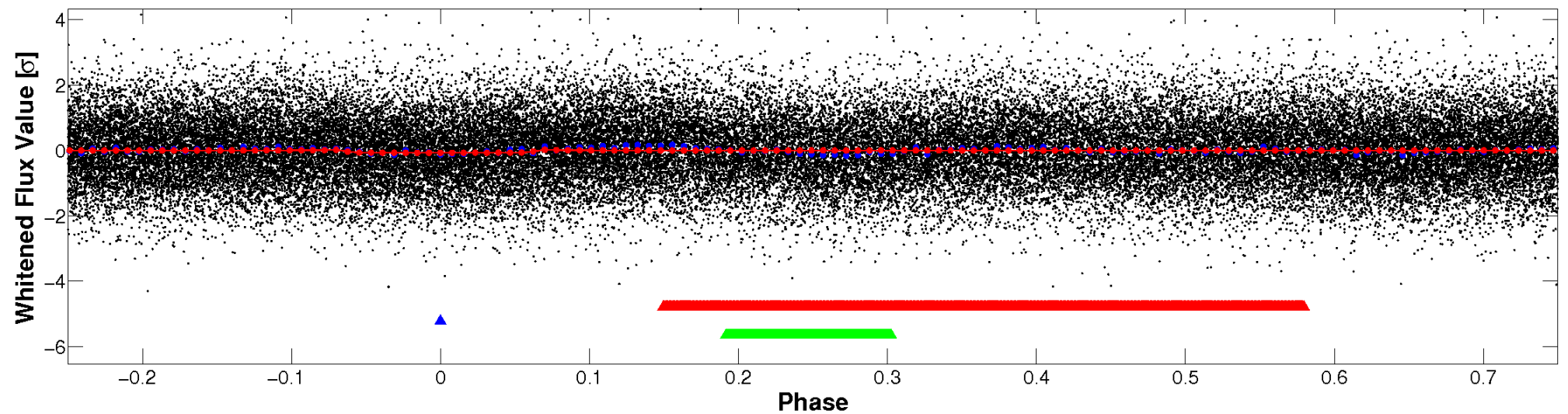


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

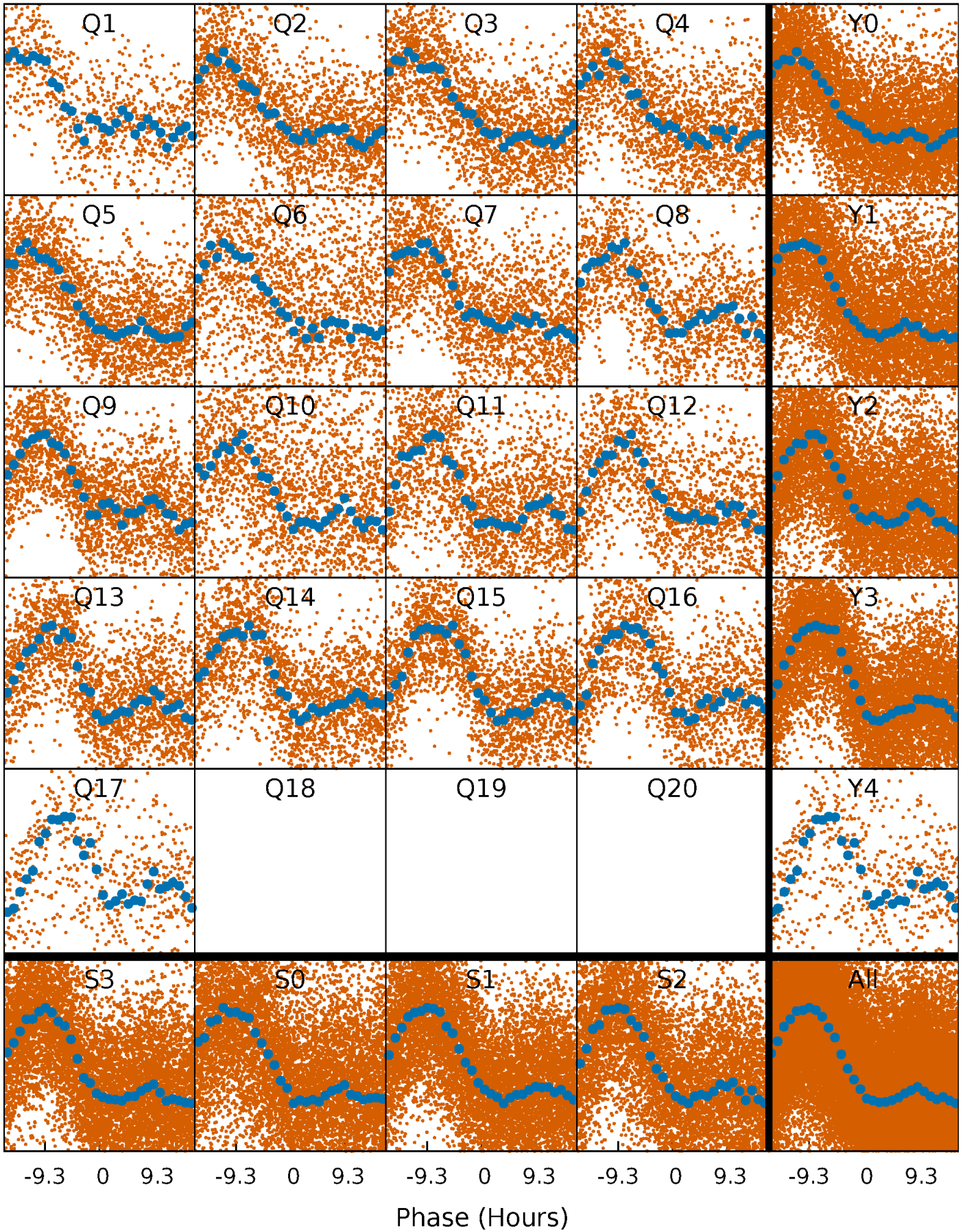


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



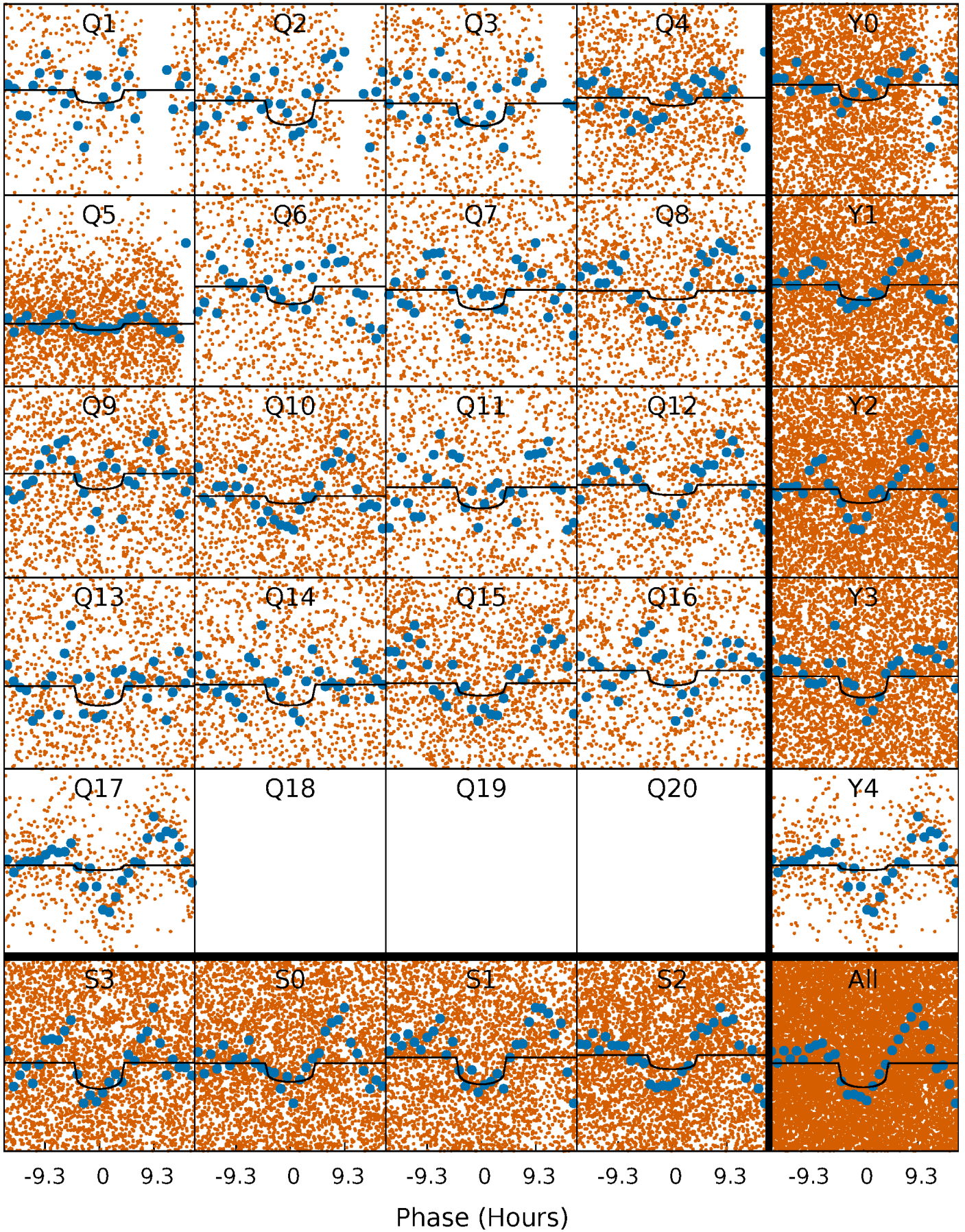
PDC Quarter-Phased Transit Curves

TCE 008907597-02 P= 2.625945 Days $T_0=132.490971$ (BKJD)



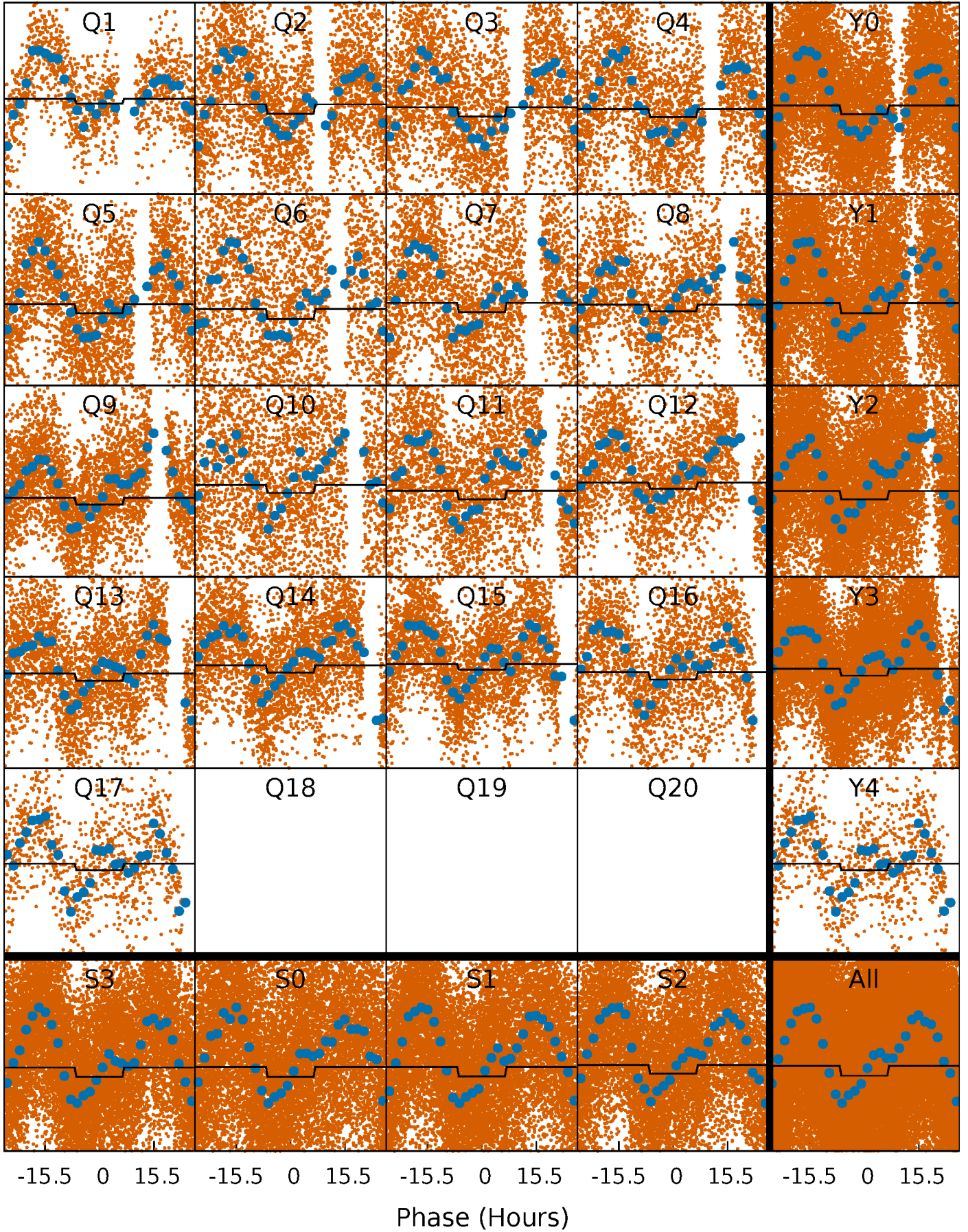
DV Quarter-Phased Transit Curves

TCE 008907597-02 P= 2.625945 Days $T_0=132.490971$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

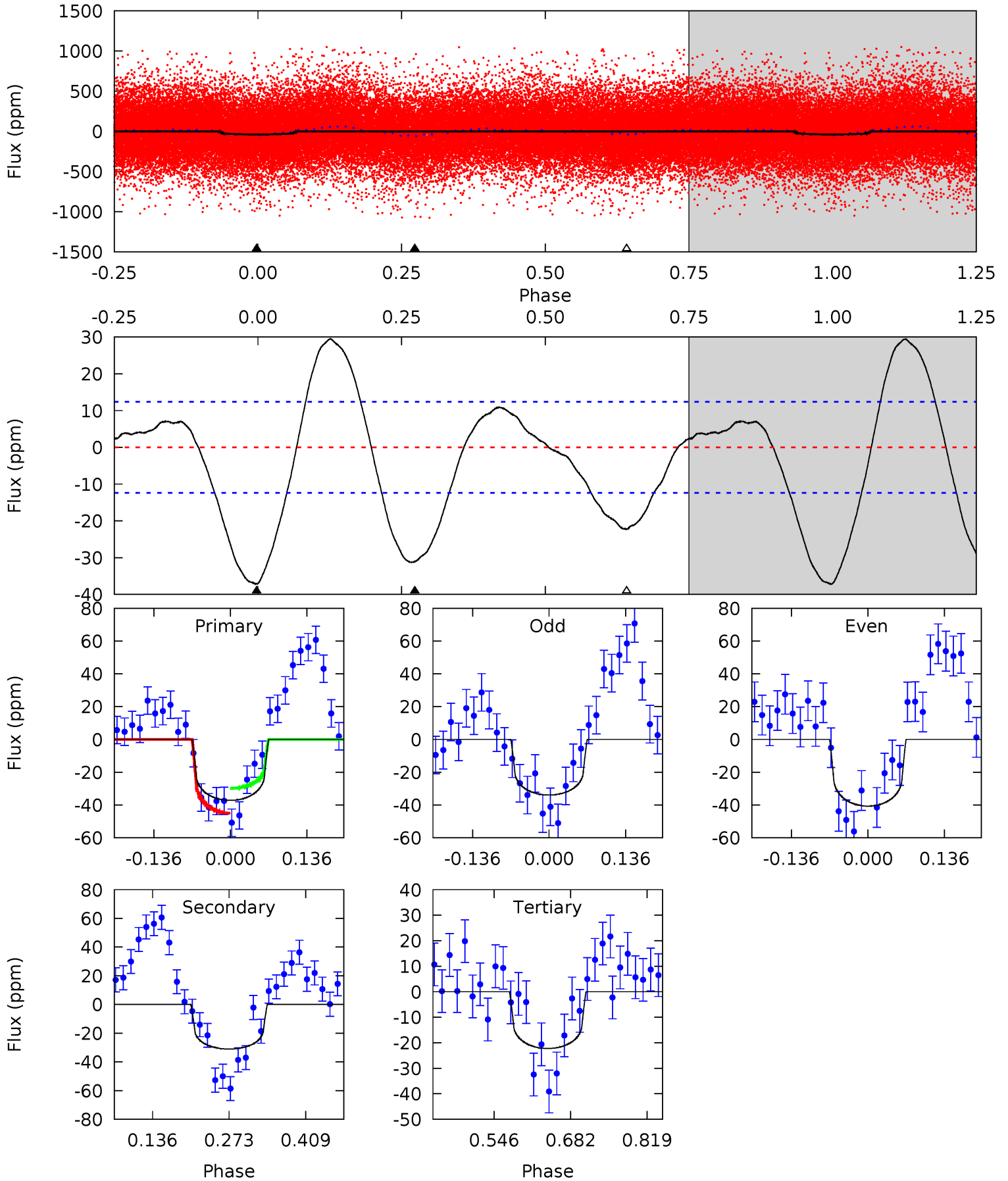
TCE 008907597-02 P= 2.626568 Days $T_0=132.568155$ (BKJD)



DV Model-Shift Uniqueness Test

008907597-02, P = 2.625945 Days, E = 129.865026 Days

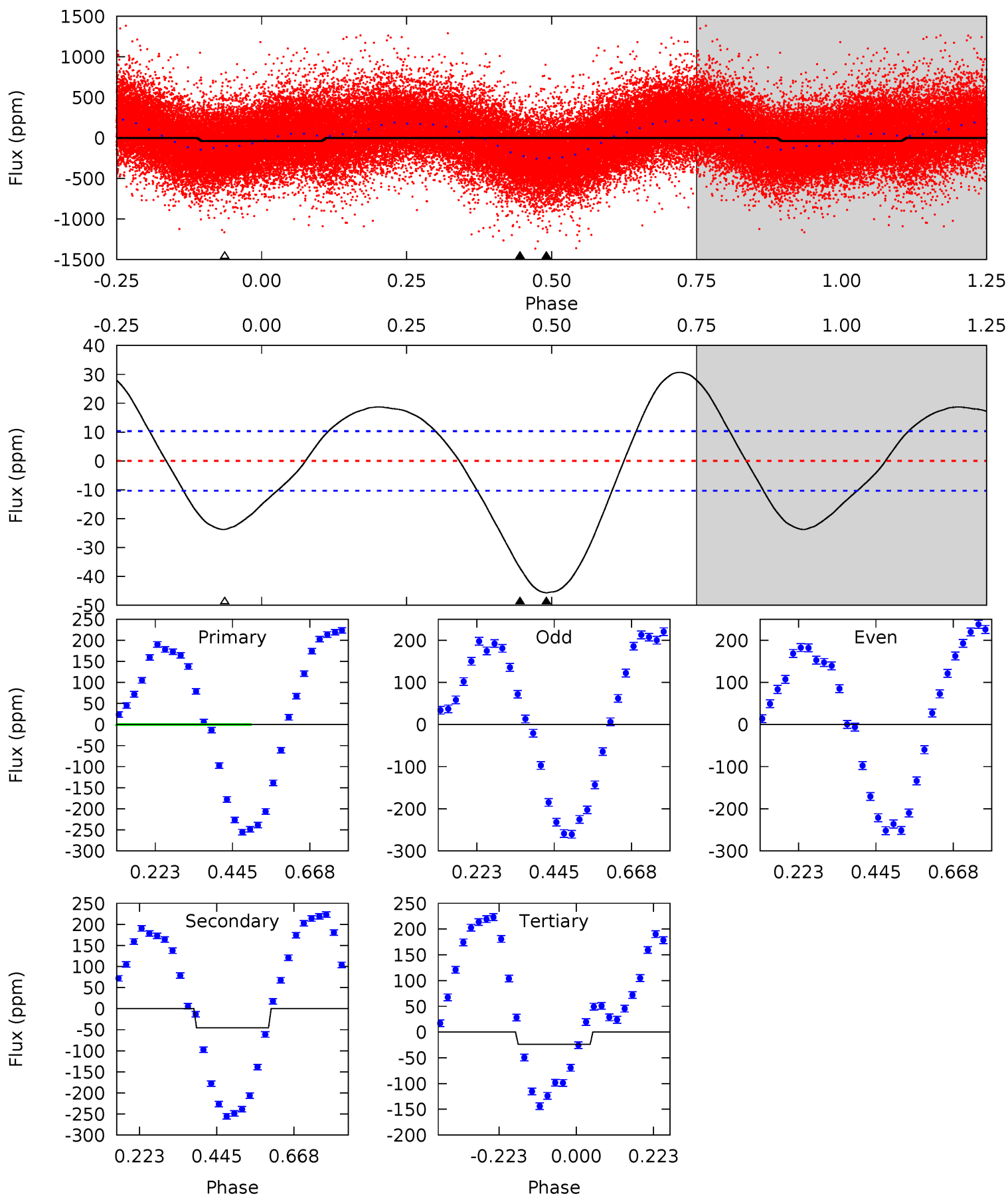
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	11.3	8.08	0	4.50	1.49	3.80	5.42	13.5	3.20	11.3	1.24	0.93	0.44	2.79



Alt Model-Shift Uniqueness Test

008907597-02, P = 2.626568 Days, E = 129.941587 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.8	19.5	10.1	0	4.39	1.22	7.33	5.68	15.8	9.35	19.5	0.20	1.09	0.40	17.2



Stellar Parameters For KIC 008907597

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5971^{+209}_{-188}	$3.718^{+0.672}_{-0.158}$	$-0.360^{+0.350}_{-0.250}$	$2.558^{+0.525}_{-1.470}$	$1.247^{+0.185}_{-0.370}$	$0.105^{+1.009}_{-0.048}$
	+4%/-3%	+18%/-4%	+97%/-69%	+21%/-57%	+15%/-30%	+962%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008907597-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-31 ± 3	$1.24^{+0.97}_{-0.71}$	2891^{+242}_{-456}	6149^{+3886}_{-1211}	17^{+79}_{-12}
Alt.	-46 ± 2	$1.54^{+1.05}_{-0.82}$	2887^{+236}_{-443}	6168^{+2974}_{-1128}	17^{+60}_{-10}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

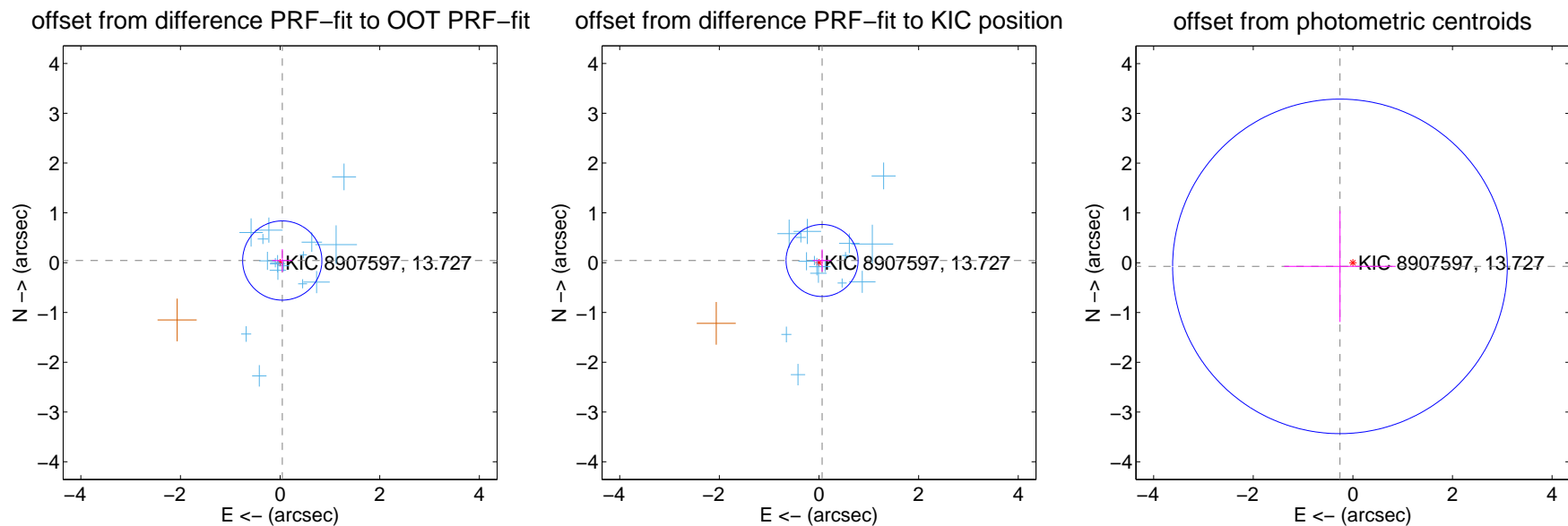
DV Centroid Data

Supplemental centroid analysis for 008907597-02. Kepler magnitude: 13.73. Transit SNR 6.09

There are 16 quarters with good PRF difference image offsets

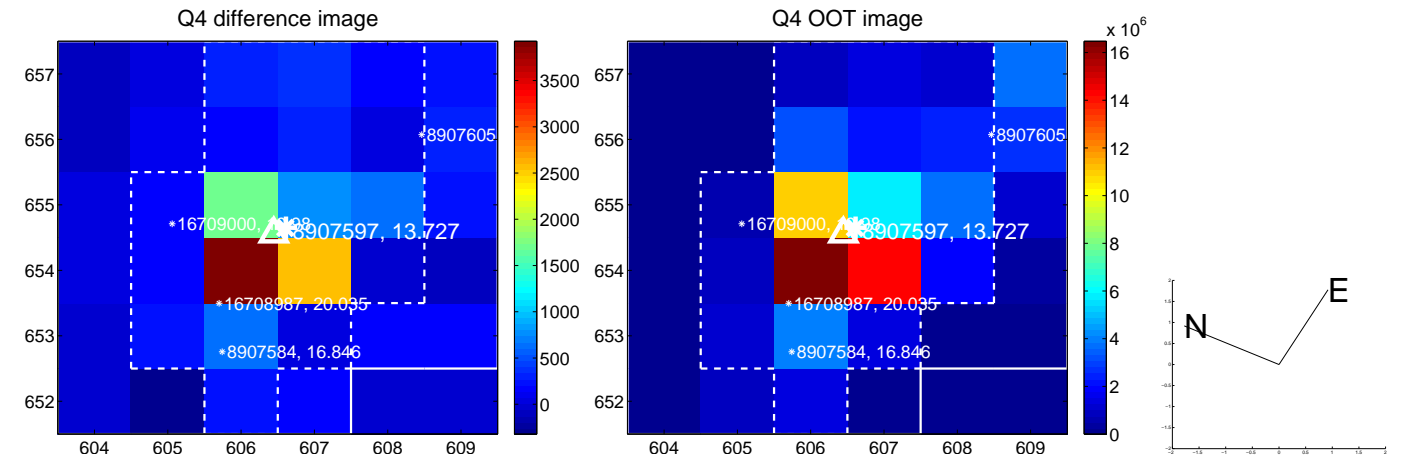
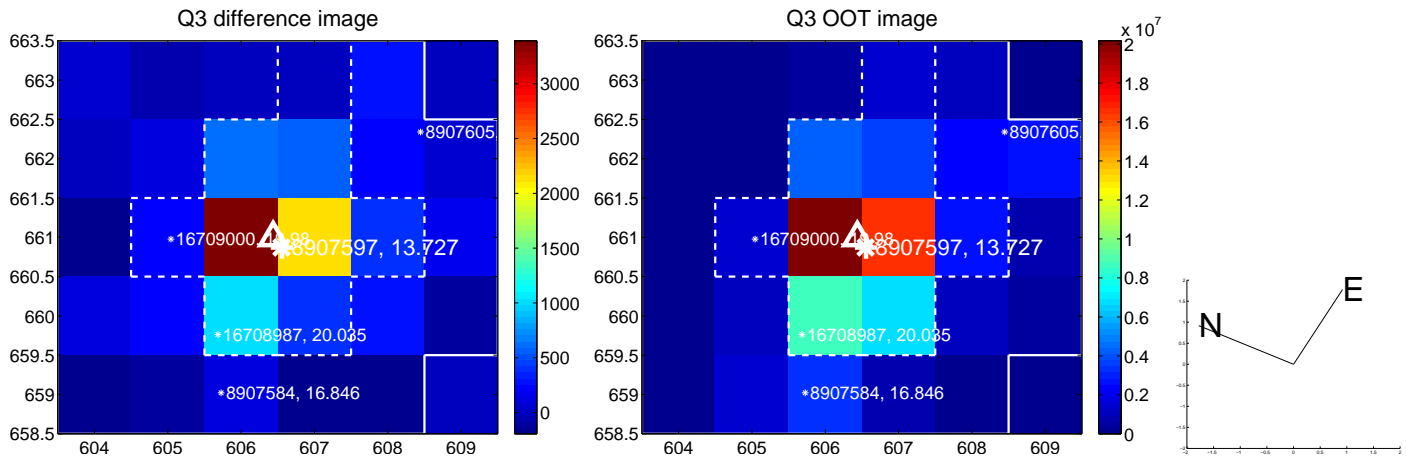
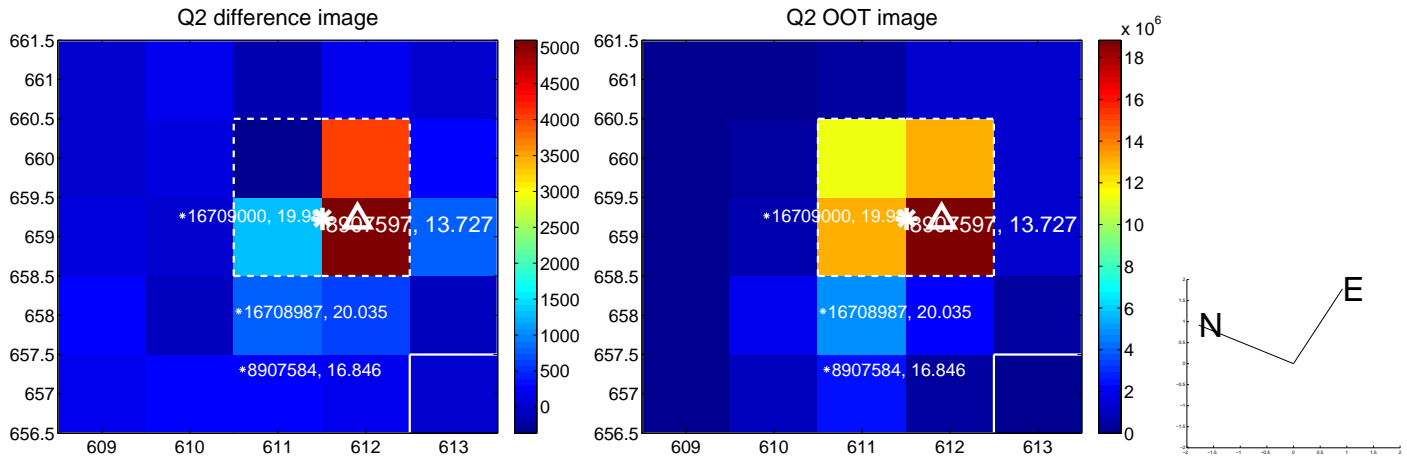
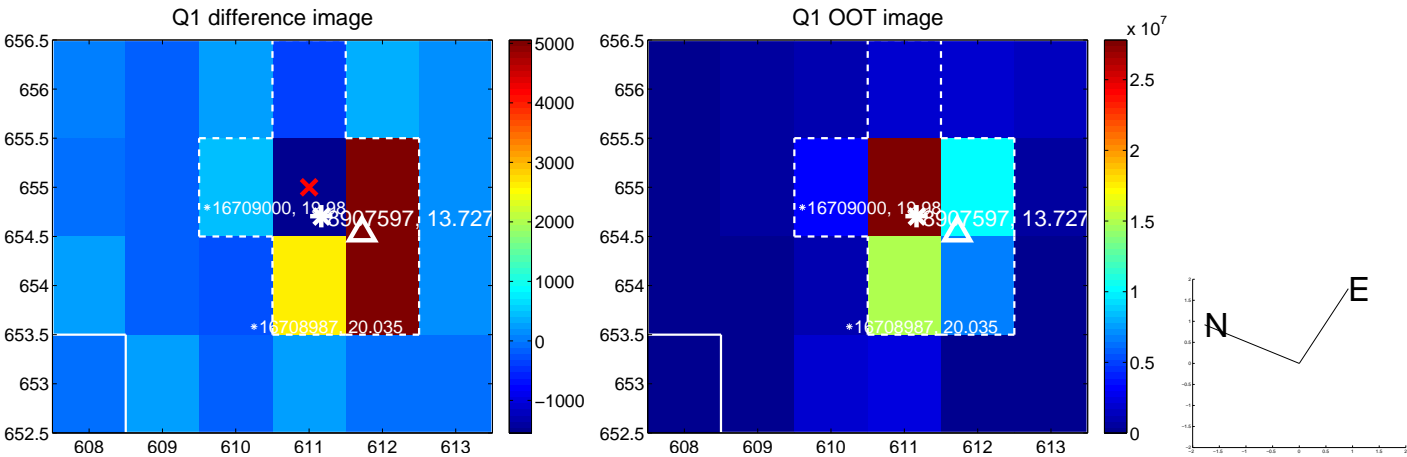
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.061 ± 0.265	0.23	-0.043 ± 0.203	0.043 ± 0.229
PRF-fit source offset from KIC position	0.076 ± 0.241	0.31	-0.062 ± 0.188	0.043 ± 0.223
photometric centroid source offset	0.27 ± 1.12	0.24	0.26 ± 1.12	-0.07 ± 1.12

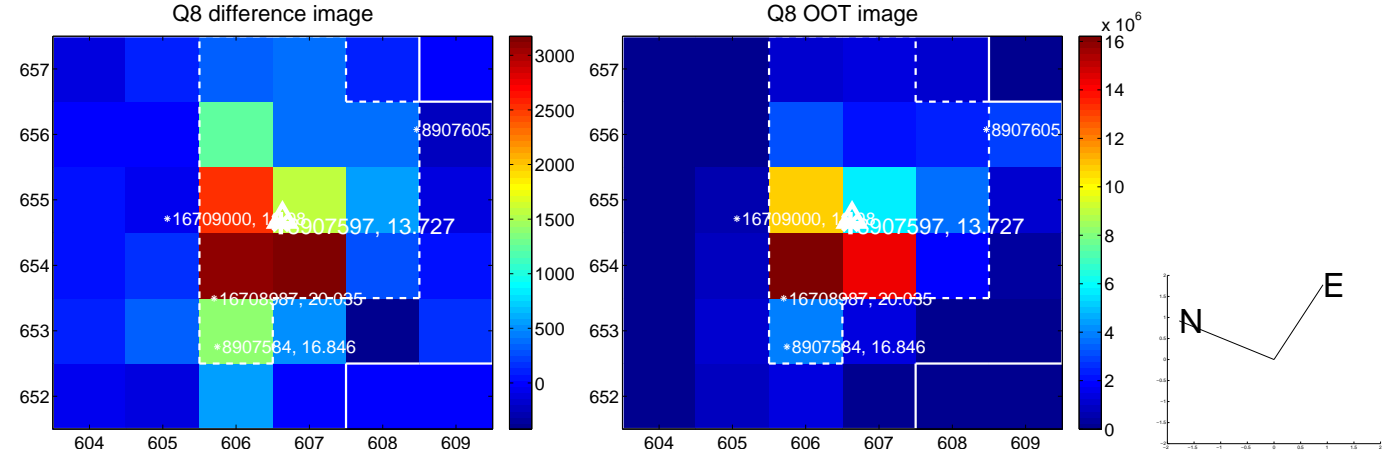
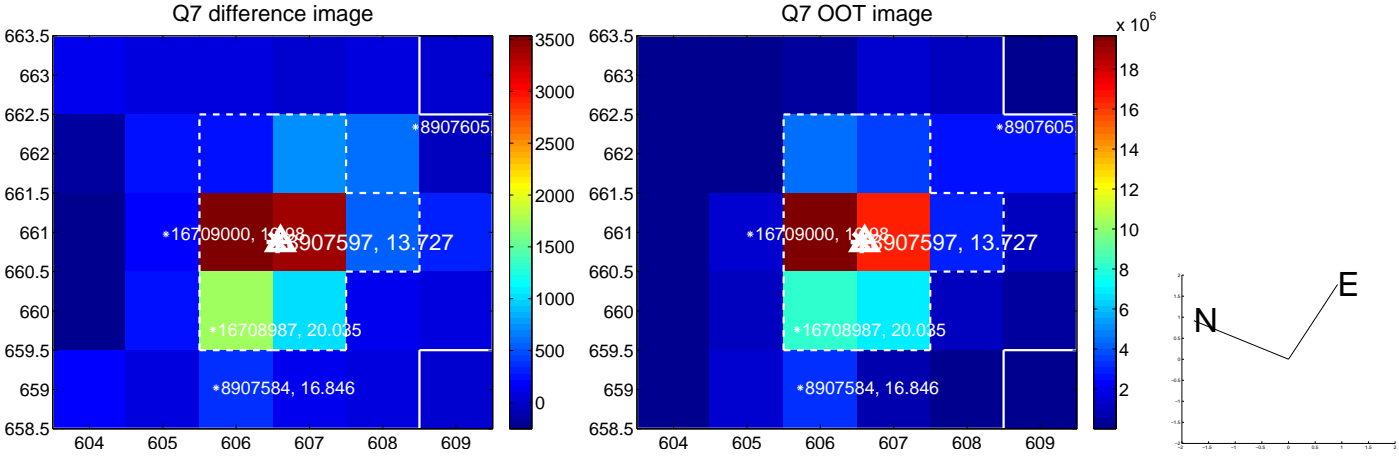
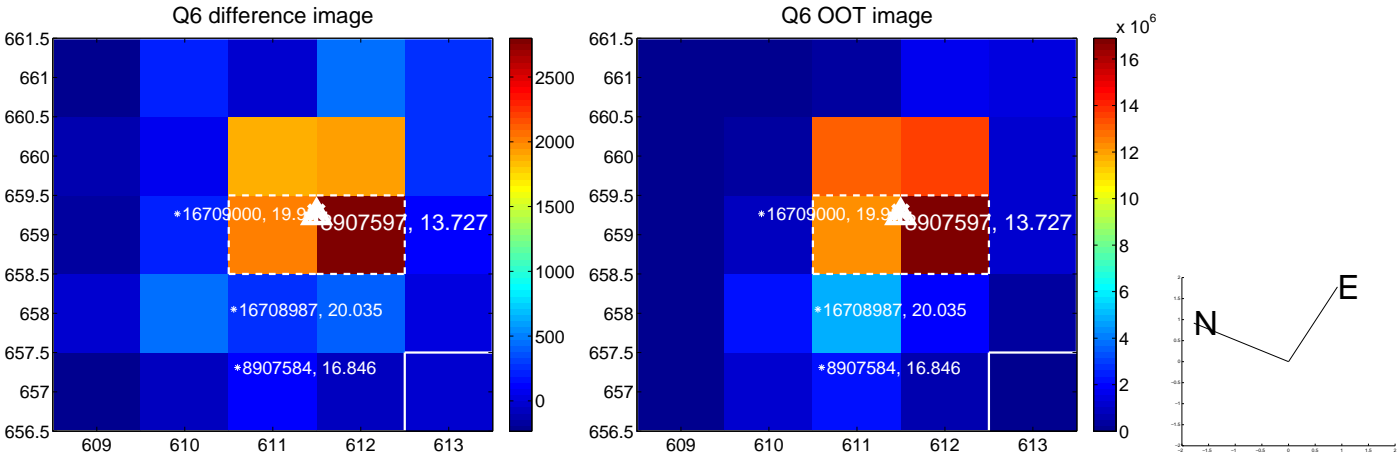
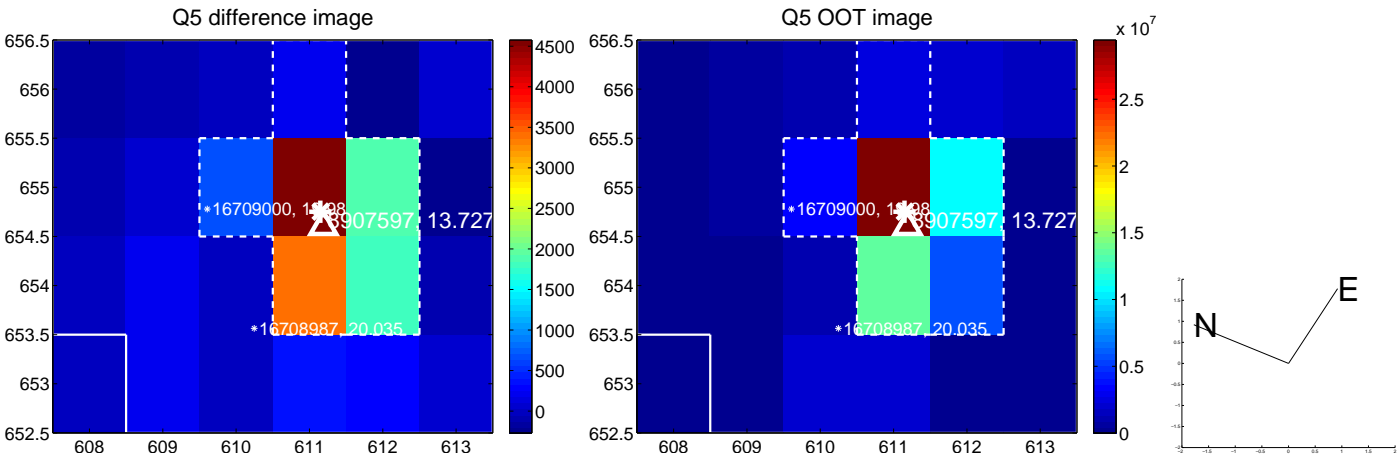


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

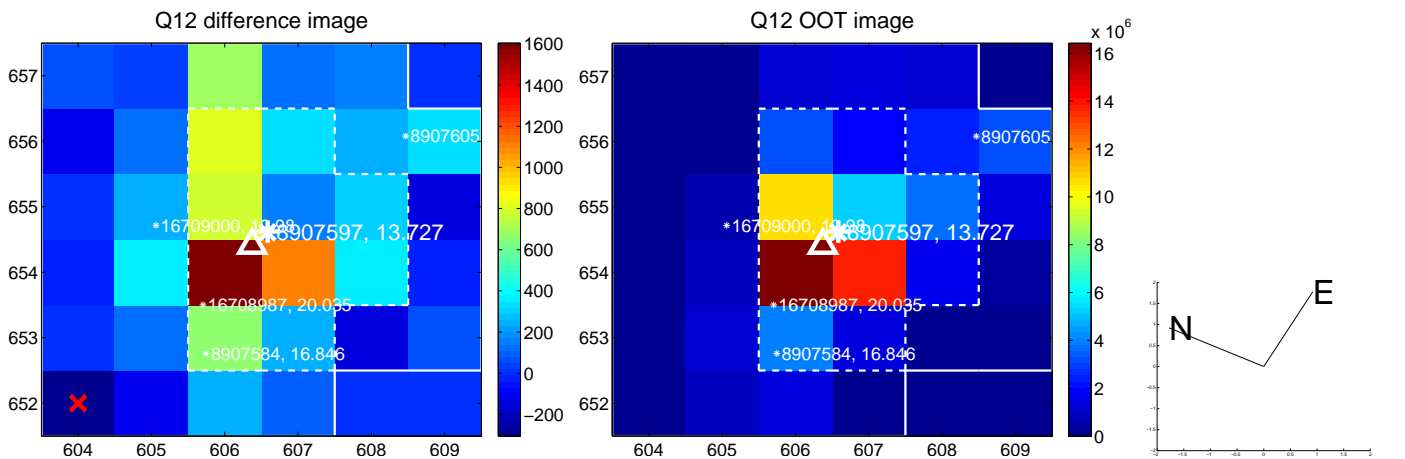
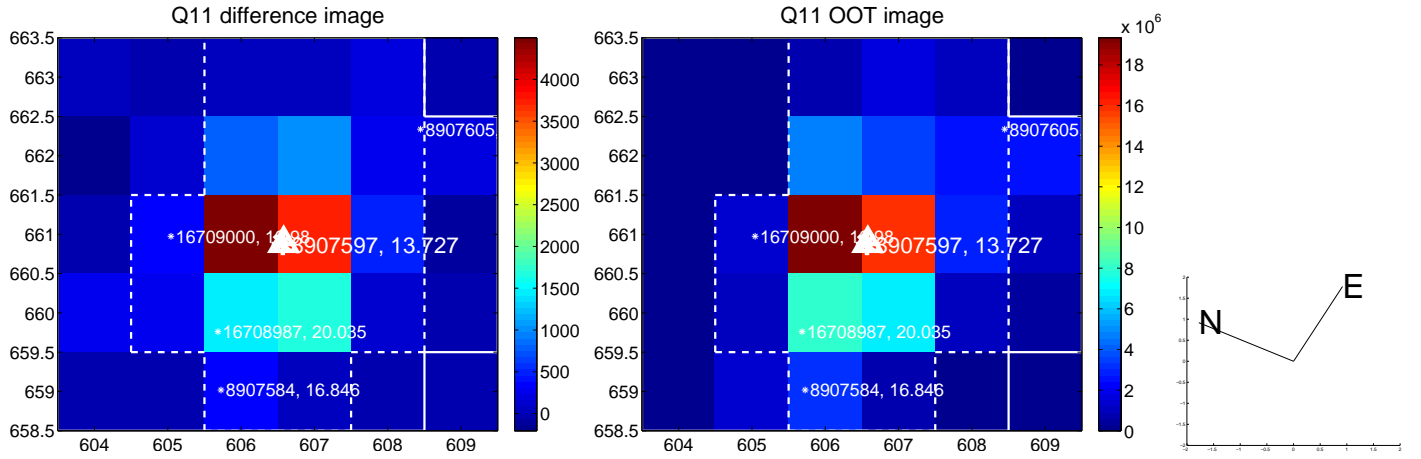
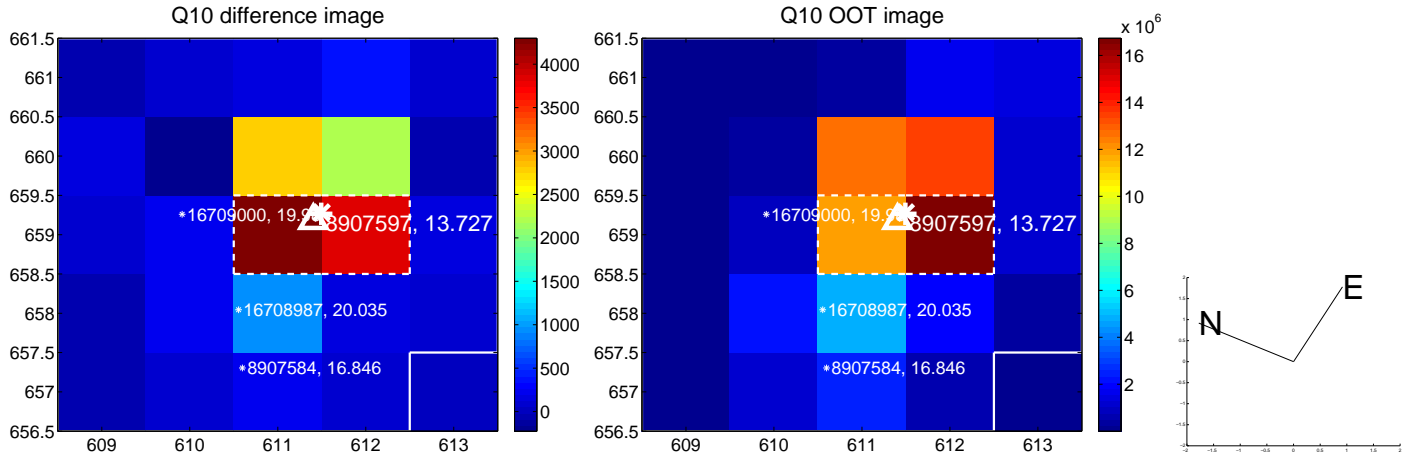
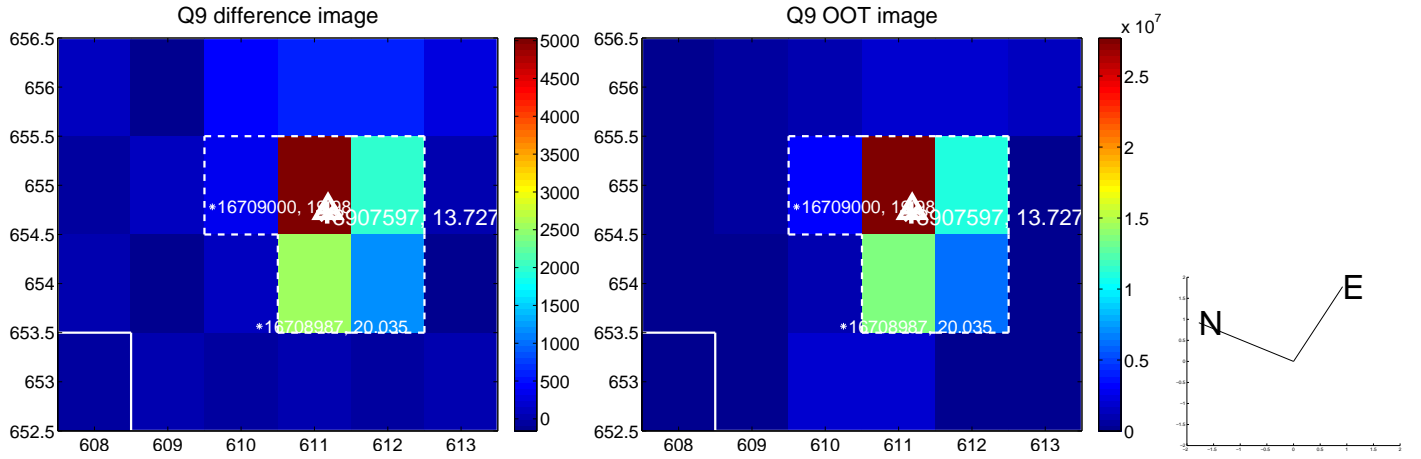
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



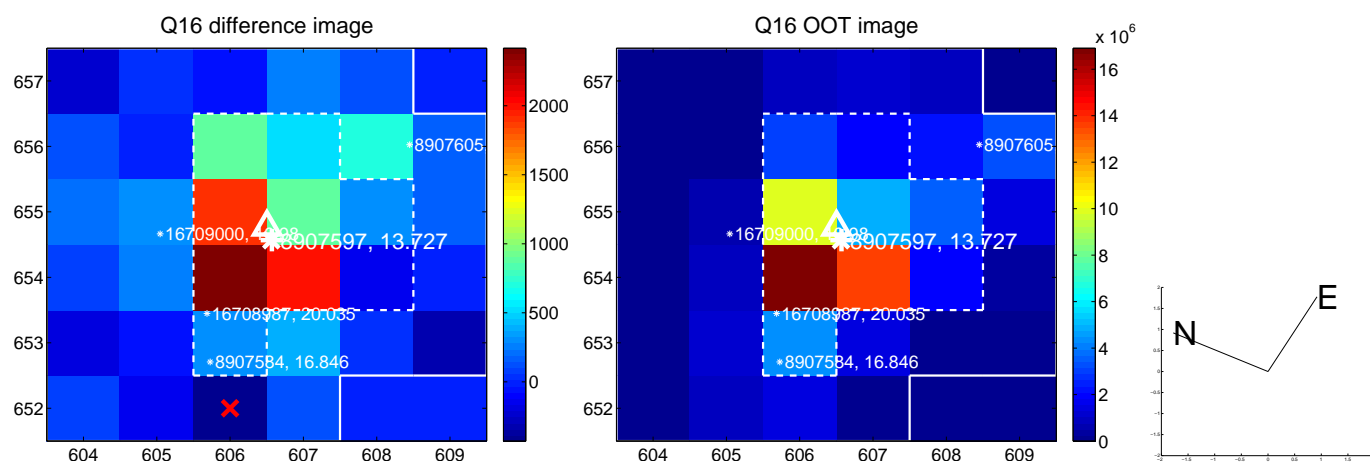
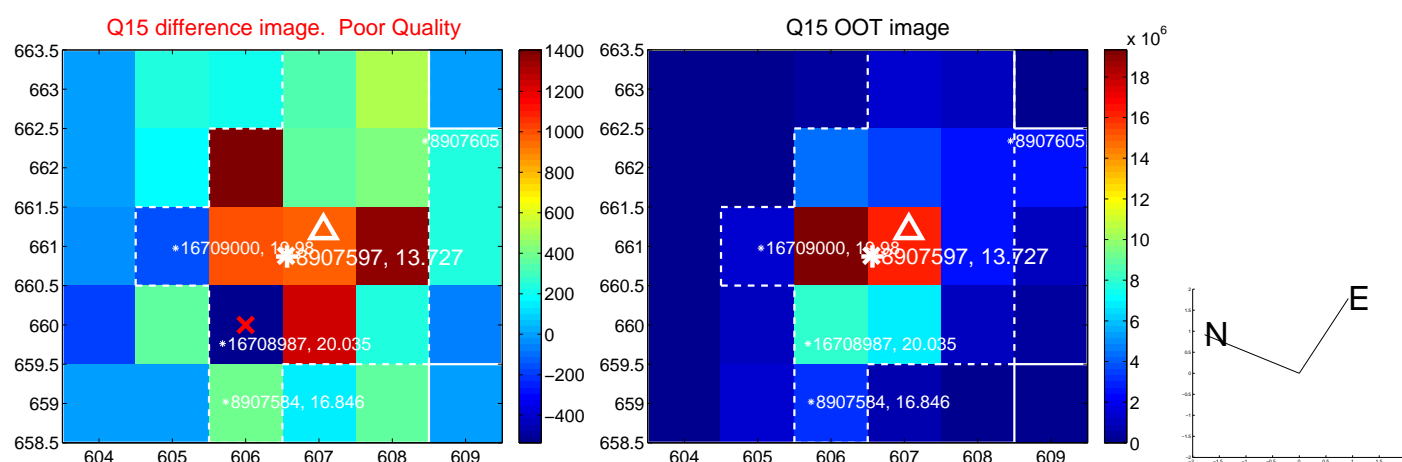
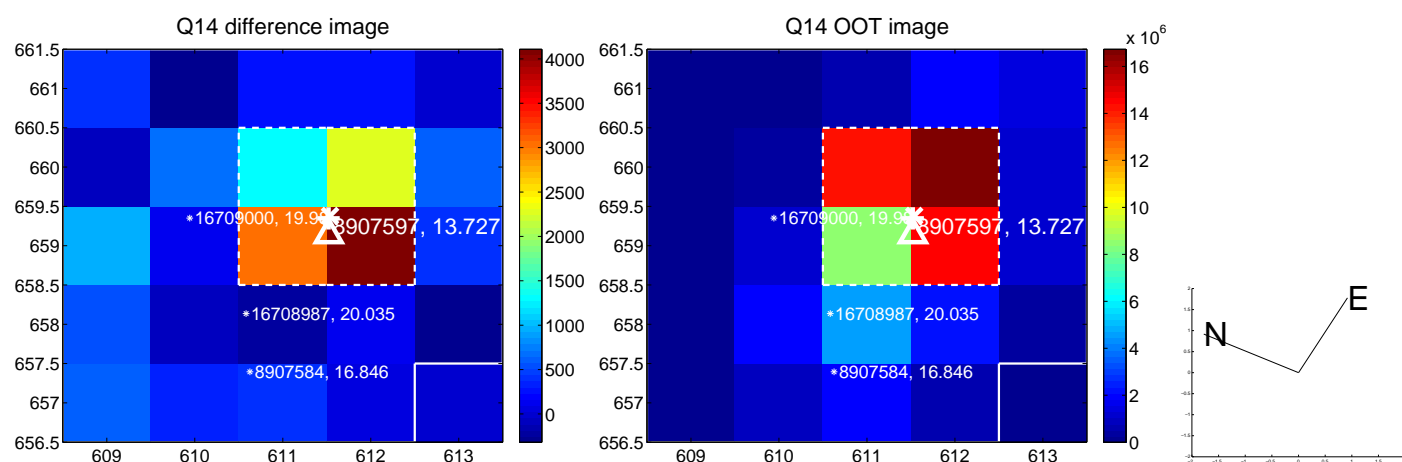
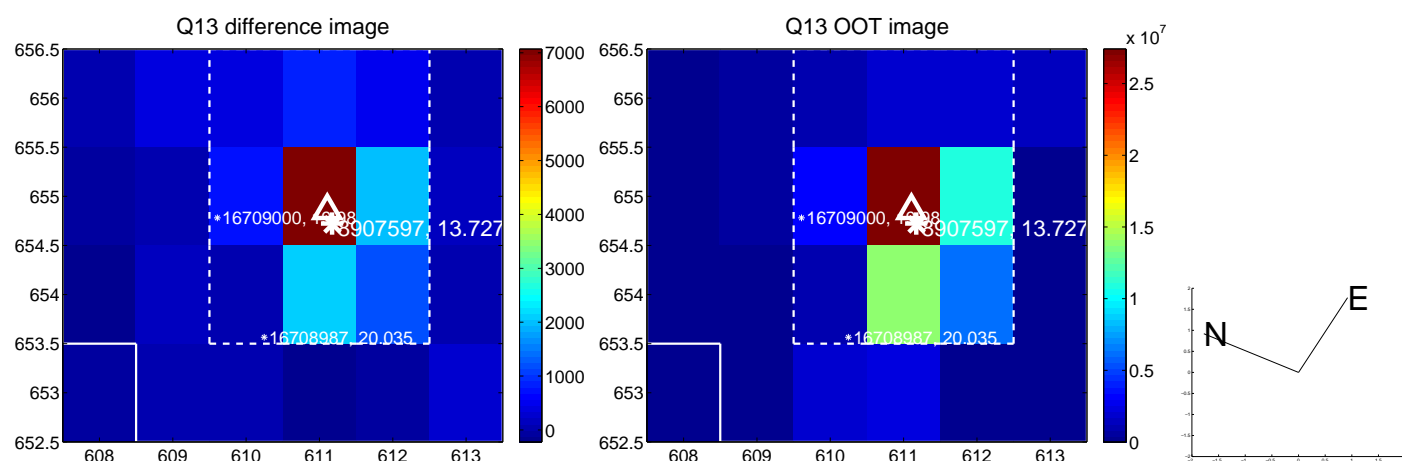
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

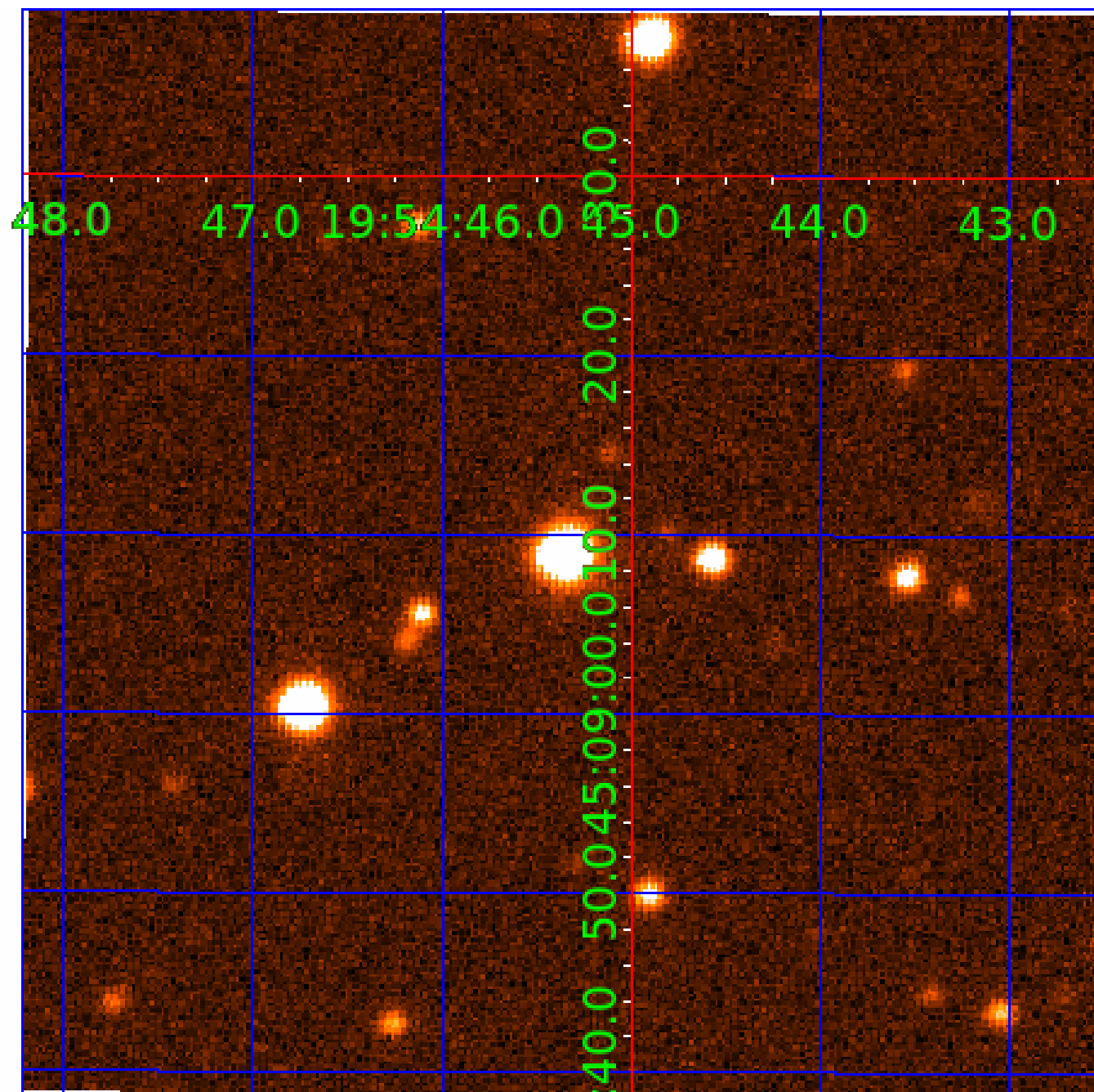


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008907597

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008907597-01	OBS	No	2.627983	132.883758	2.4	1.232	9.2	0.3	2.56	5971	0.56	4629.35
008907597-02	OBS	No	2.625945	132.490971	29.7	8.160	8.7	6.1	2.56	5971	1.43	4634.14
008907597-03	OBS	No	2.626469	132.994189	58.8	5.270	9.5	10.1	2.56	5971	2.33	4632.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008907597-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008907597-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008907597-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

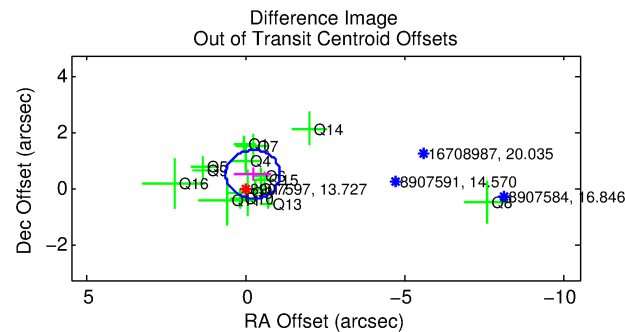
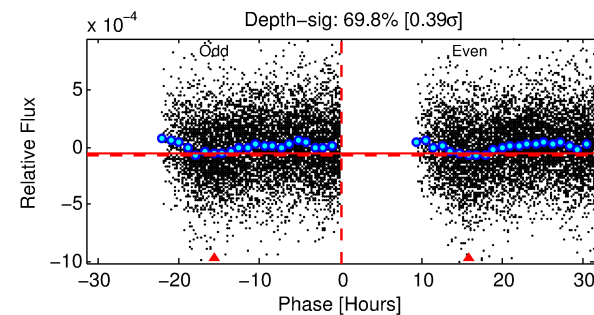
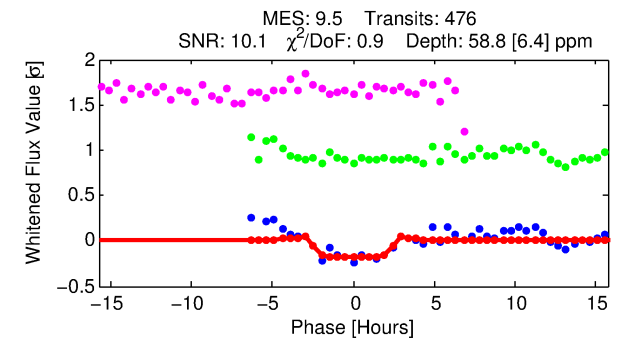
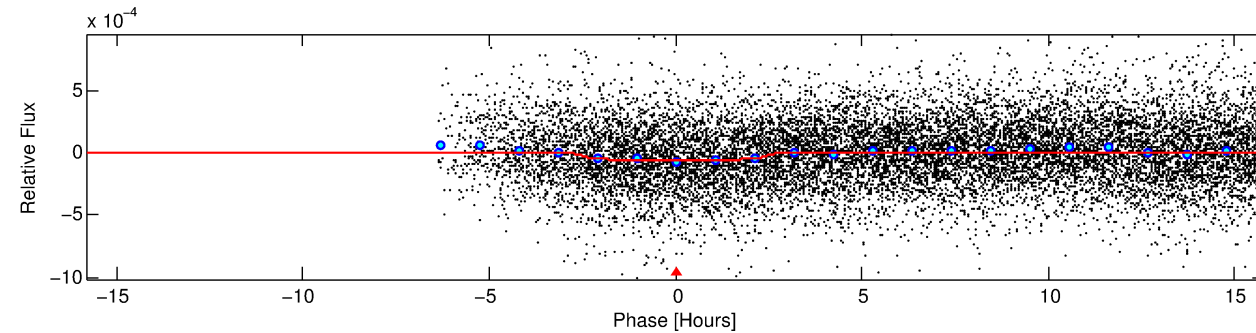
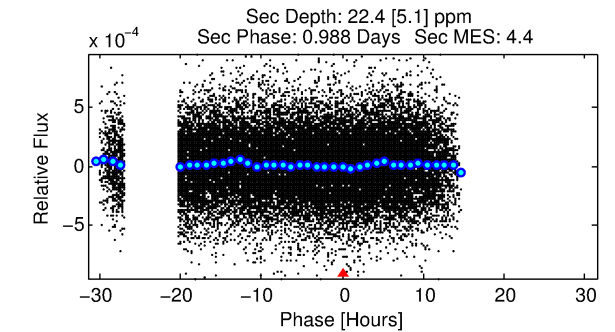
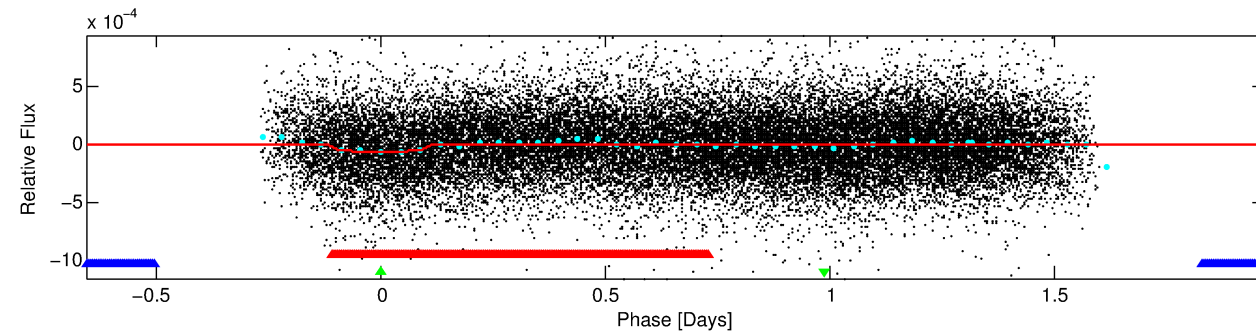
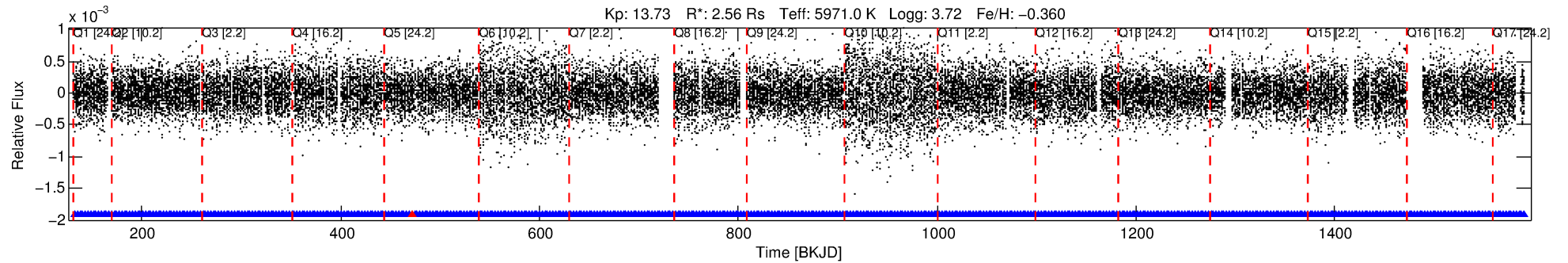
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008907597-03

No Significant Match Found

DV One-Page Summary

KIC: 8907597 Candidate: 3 of 3 Period: 2.626 d



DV Fit Results:

Period = 2.62647 [0.00002] d
Epoch = 132.9942 [0.0051] BKJD
Rp/R* = 0.0083 [0.0026]
a/R* = 1.90 [2.32]
b = 0.91 [0.32]
Seff = 4632.90 [5139.16]
Teff = 2104 [583] K
Rp = 2.33 [1.53] Re
a = 0.0401 [0.0258] AU
Ag = 3.65 [4.71] [0.56σ]
Teffp = 4497 [772] K [2.47σ]

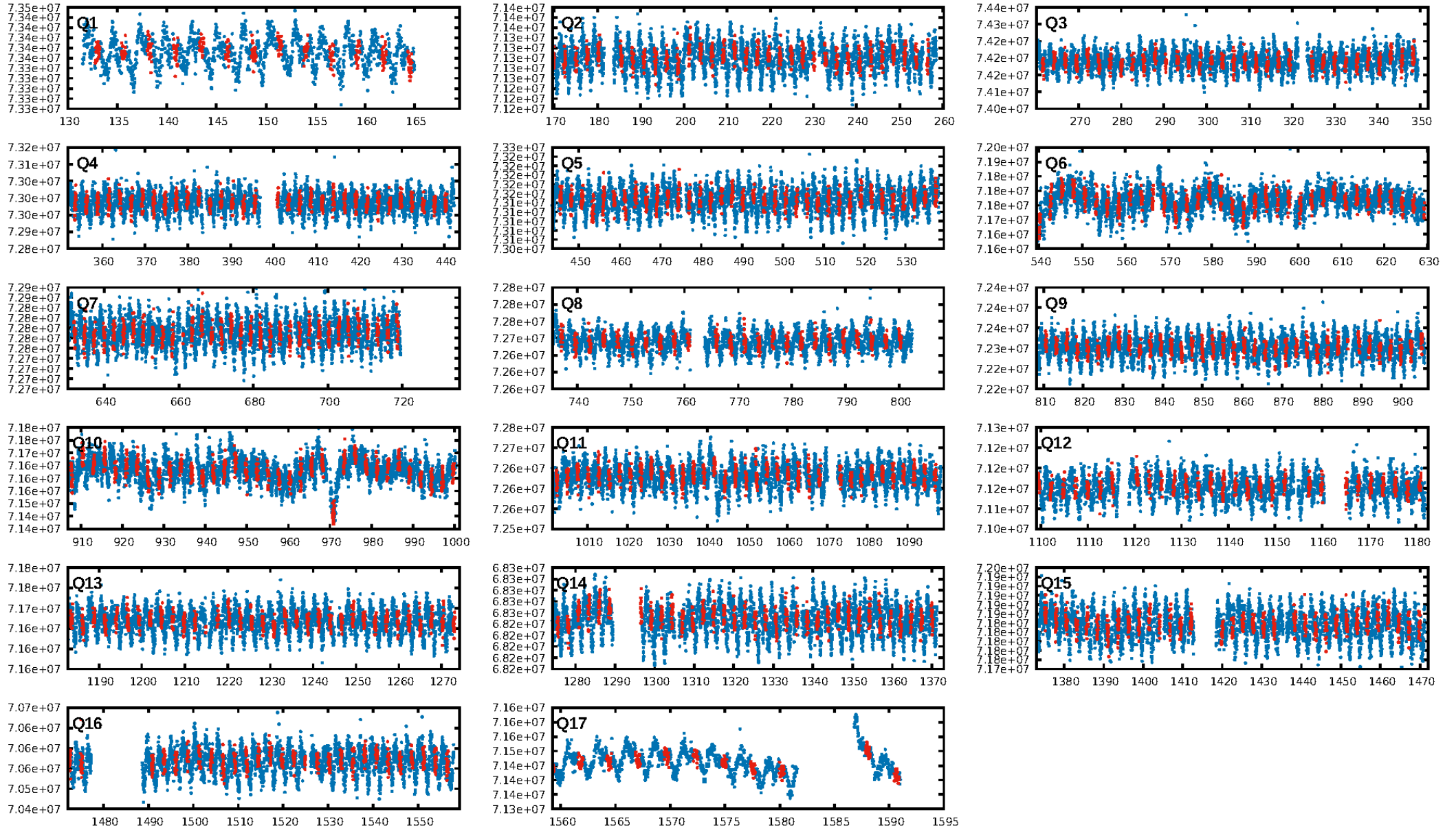
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: 0.5% [0.01σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.96e-13
RollingBand-fgt: 1.00 [451/452]
GhostDiagnostic-chr: 1.602
Centroid-sig: 7.5%
Centroid-so: 0.642 arcsec [0.94σ]
OotOffset-rm: 0.555 arcsec [1.94σ]
KicOffset-rm: 0.540 arcsec [1.74σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 0.35 [6/17]

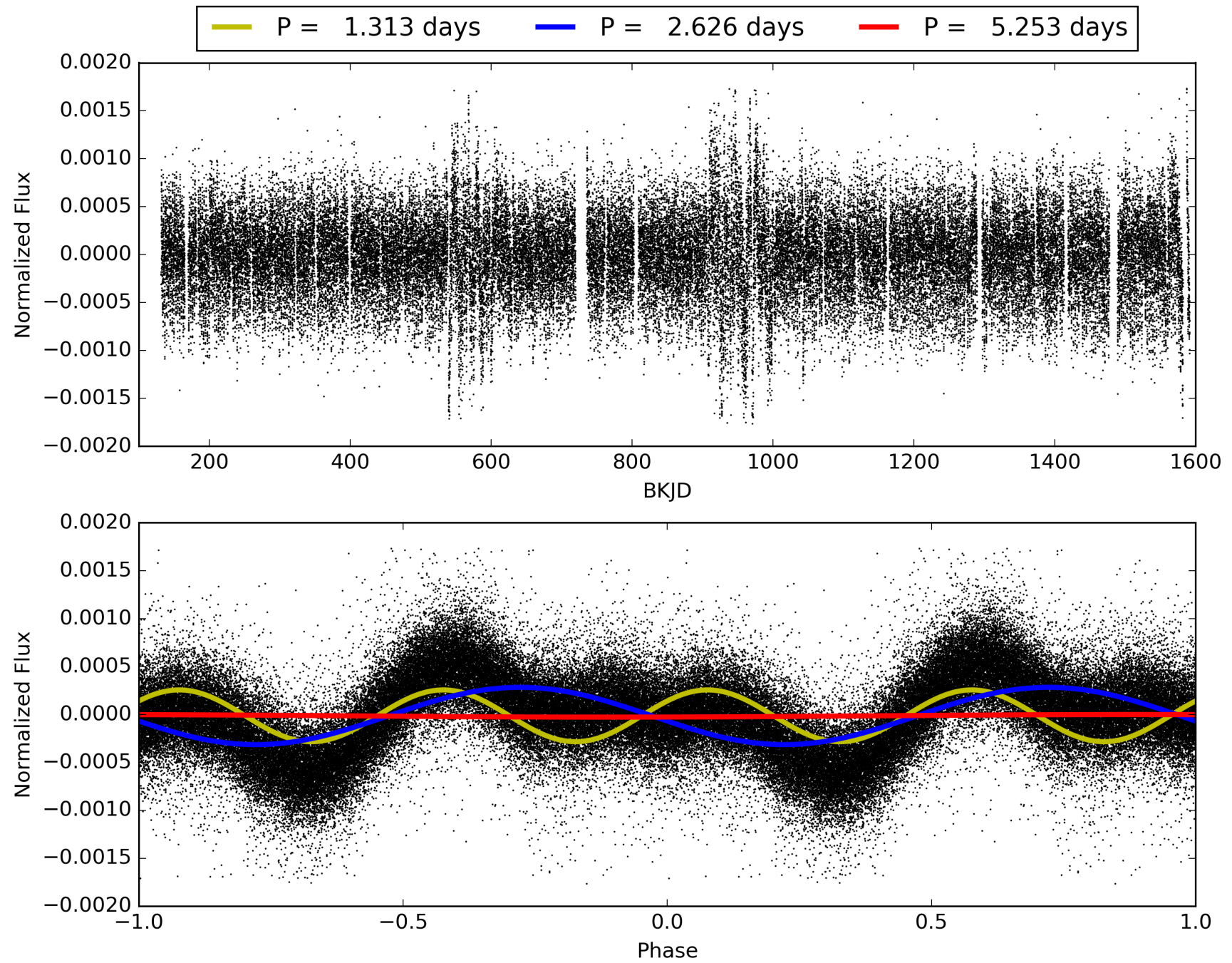
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:15:46 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008907597-03, PDC Light Curves

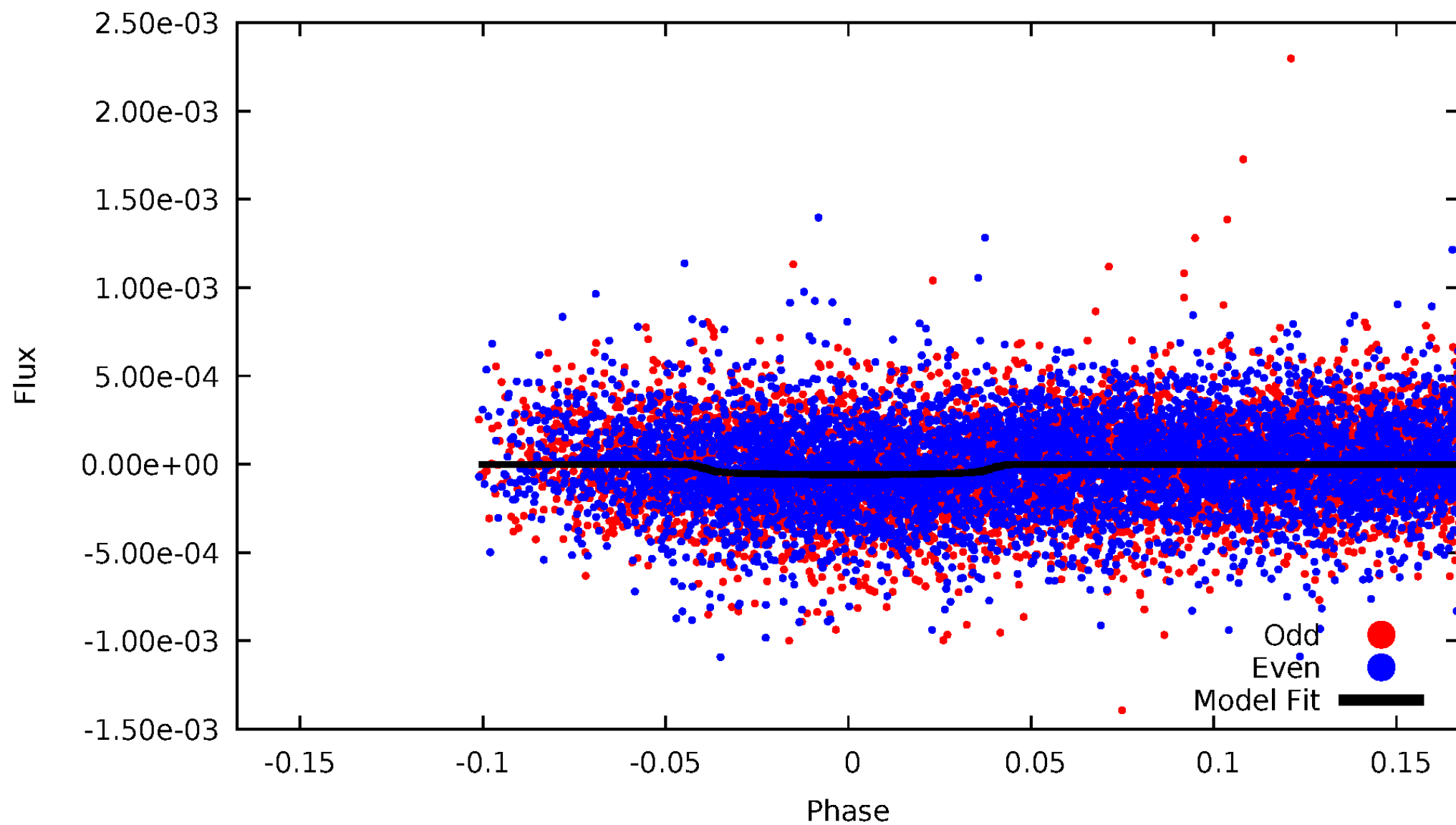


TCE 008907597-03



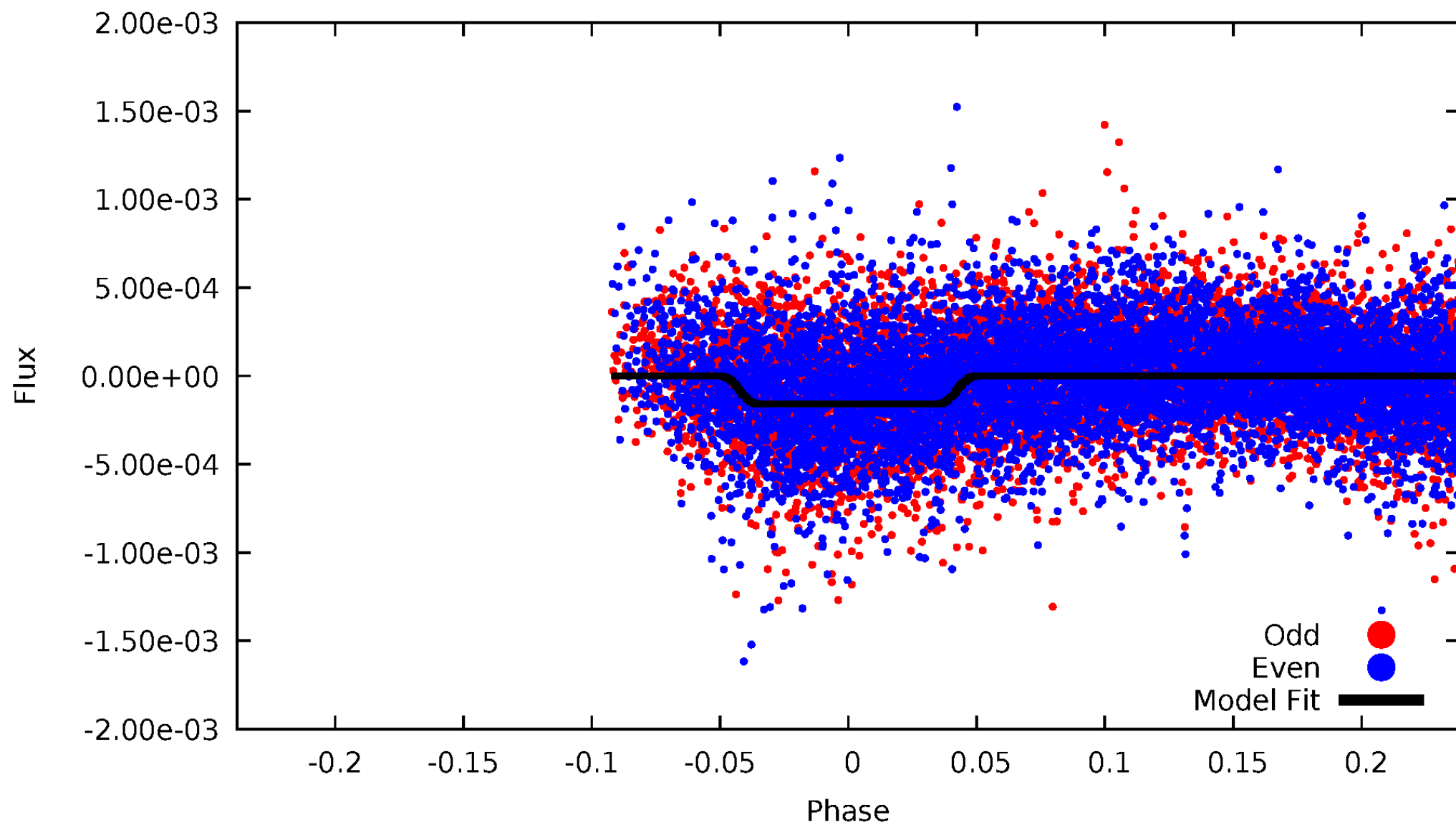
DV Odd/Even

TCE 008907597-03



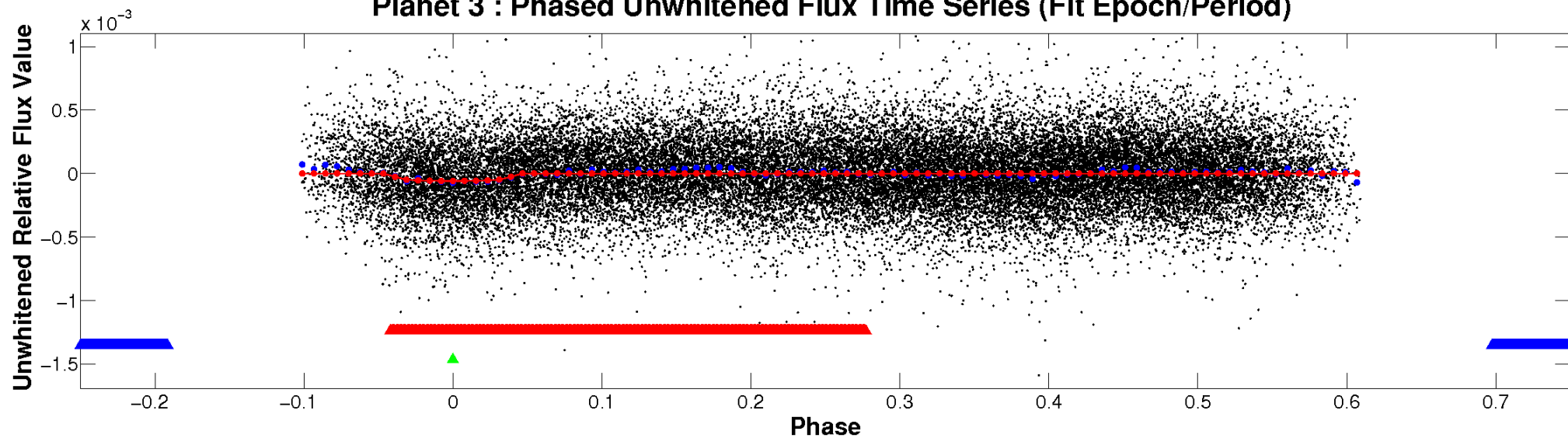
ALT Odd/Even

TCE 008907597-03

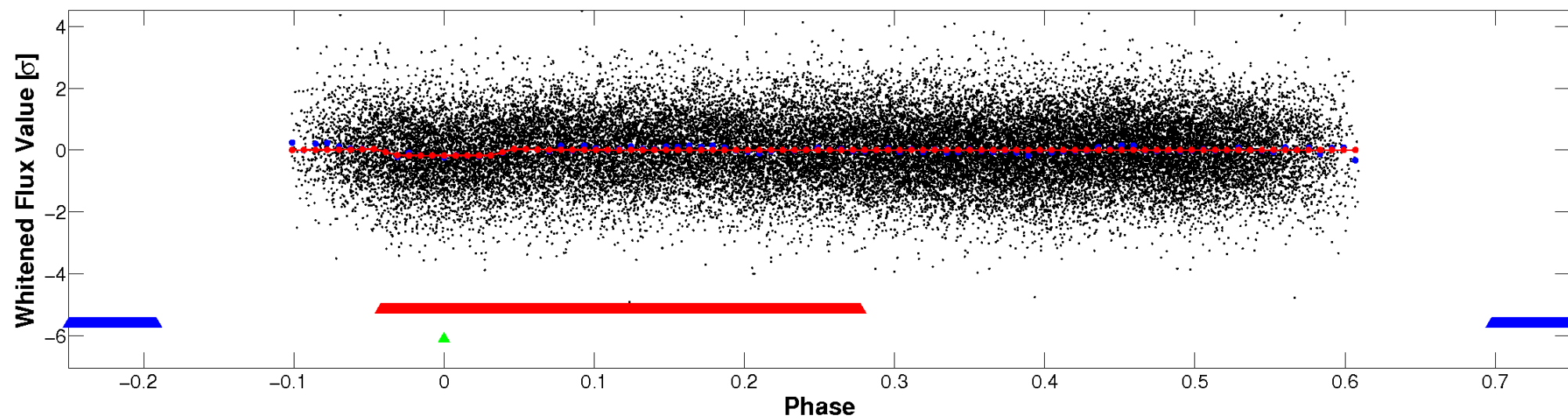


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

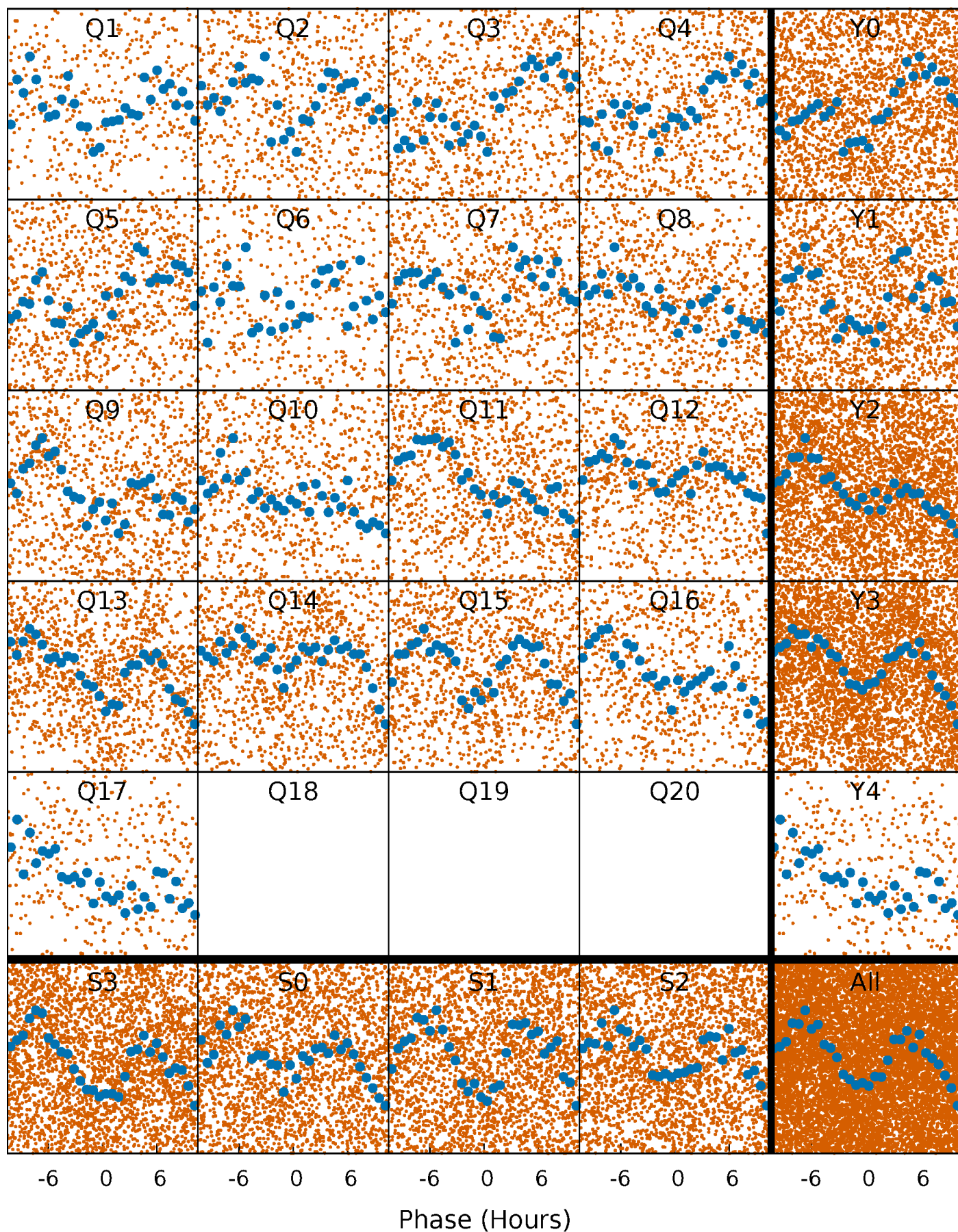


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



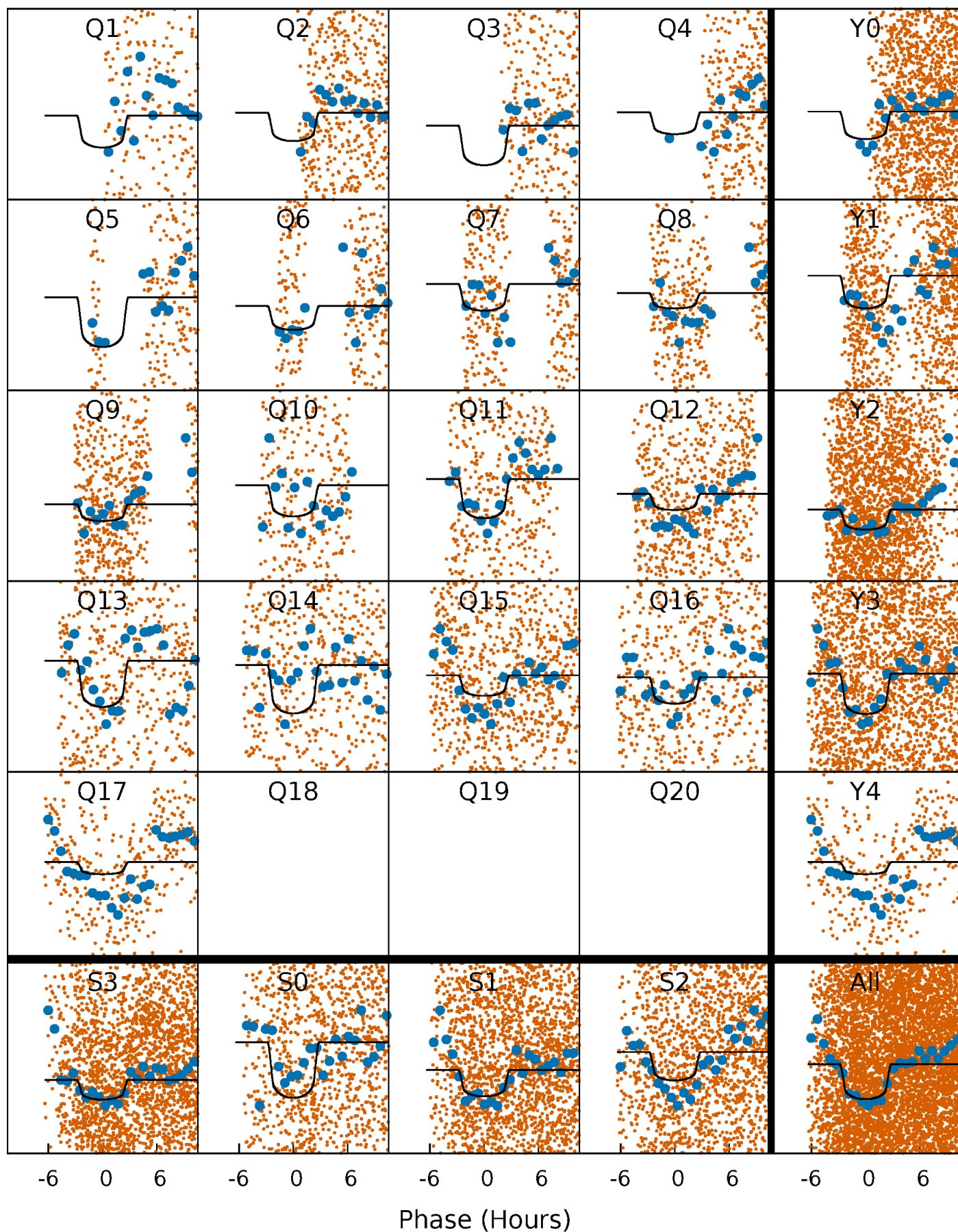
PDC Quarter-Phased Transit Curves

TCE 008907597-03 P= 2.626469 Days $T_0=132.994189$ (BKJD)



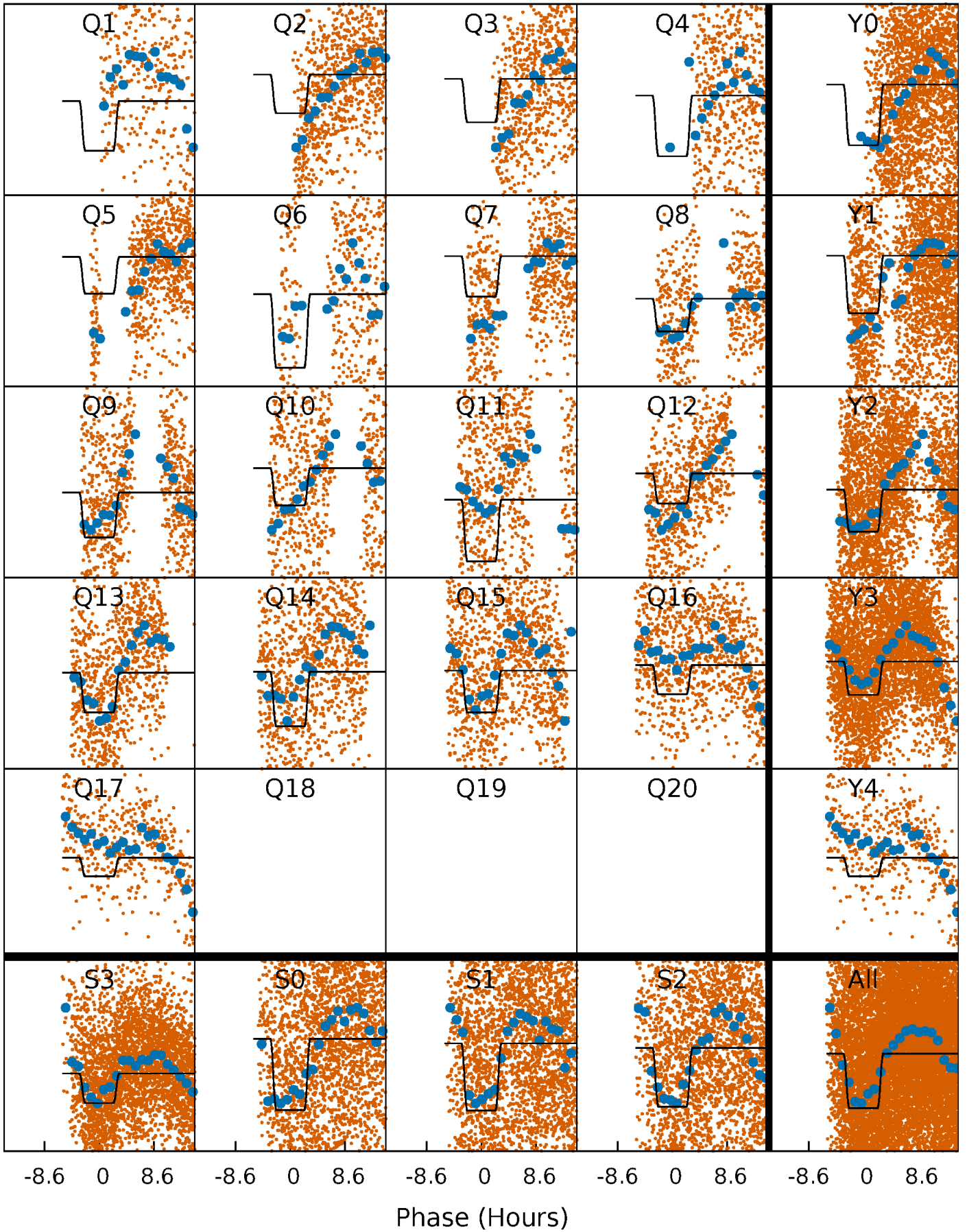
DV Quarter-Phased Transit Curves

TCE 008907597-03 P= 2.626469 Days $T_0=132.994189$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

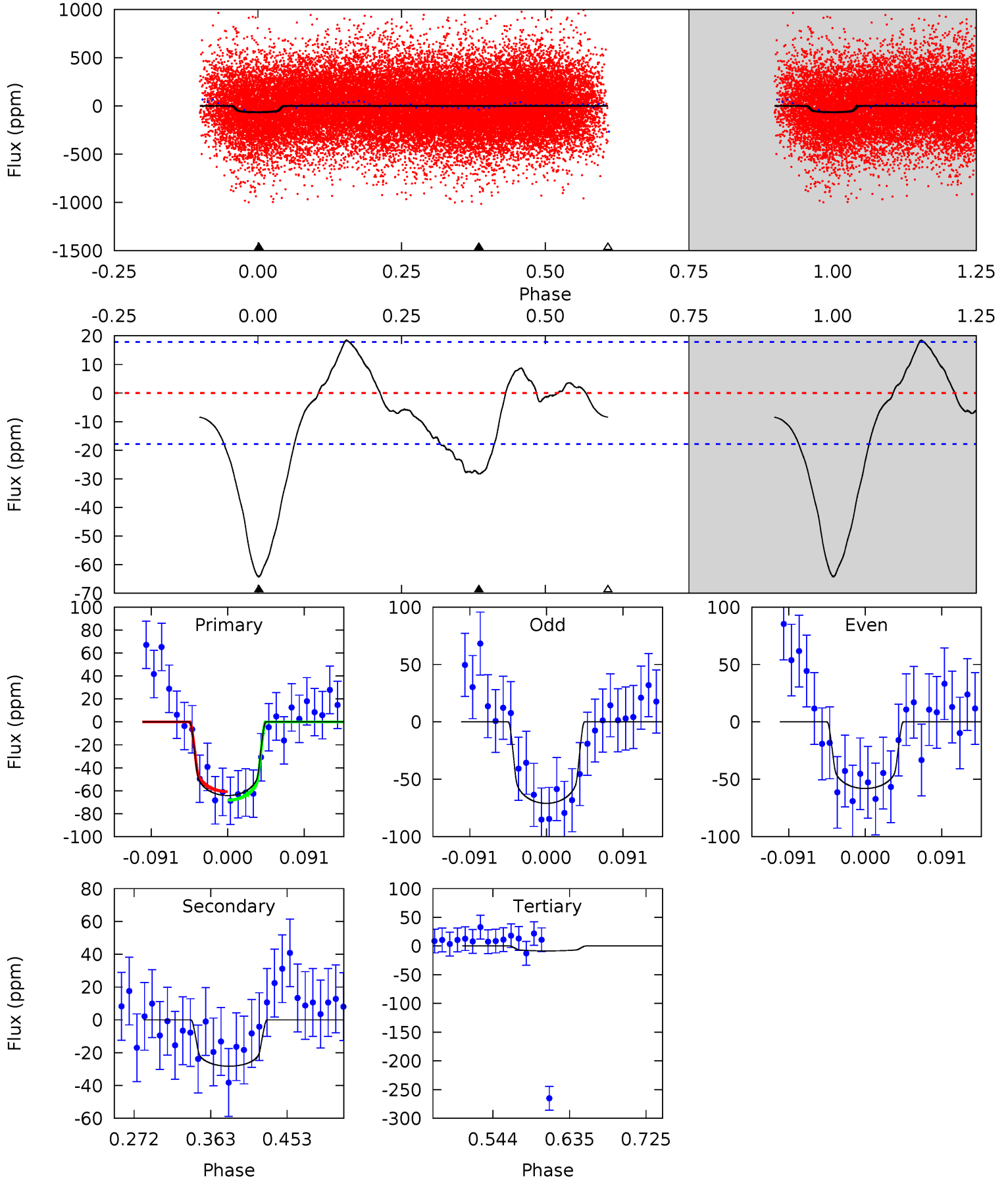
TCE 008907597-03 P= 2.626421 Days $T_0=132.996910$ (BKJD)



DV Model-Shift Uniqueness Test

008907597-03, P = 2.626469 Days, E = 130.367720 Days

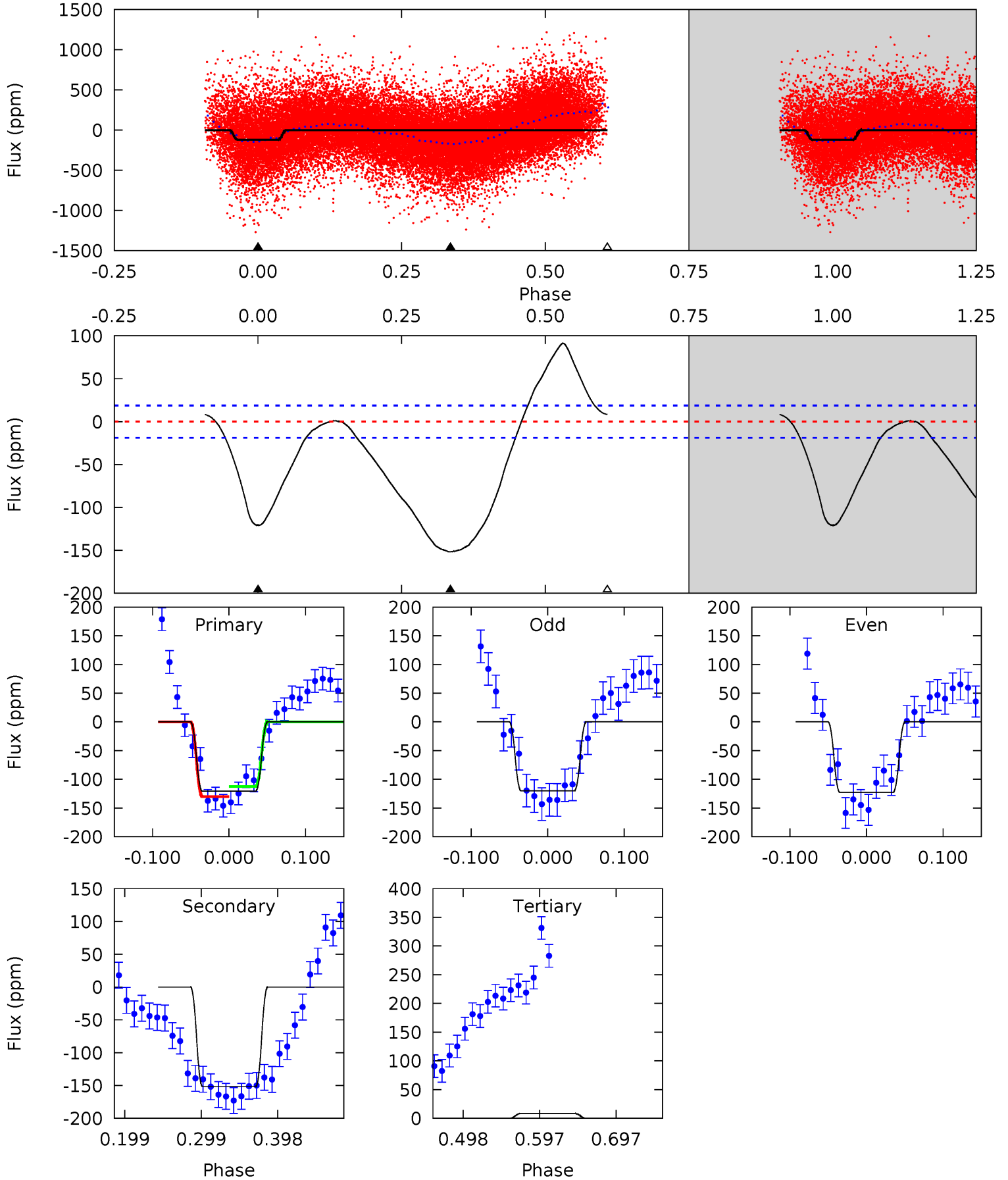
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.5	7.25	2.16	0	4.59	1.69	1.97	14.3	16.5	5.08	7.25	1.67	0.91	0.22	0.96



Alt Model-Shift Uniqueness Test

008907597-03, P = 2.626421 Days, E = 130.370489 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.3	36.8	-2.03	0	4.57	1.65	10.9	31.3	29.3	38.8	36.8	0.33	1.06	0.38	1.95



Stellar Parameters For KIC 008907597

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5971^{+209}_{-188}	$3.718^{+0.672}_{-0.158}$	$-0.360^{+0.350}_{-0.250}$	$2.558^{+0.525}_{-1.470}$	$1.247^{+0.185}_{-0.370}$	$0.105^{+1.009}_{-0.048}$
	+4%/-3%	+18%/-4%	+97%/-69%	+21%/-57%	+15%/-30%	+962%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008907597-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-28 ± 4	$2.08^{+0.86}_{-0.83}$	2873^{+256}_{-429}	4852^{+898}_{-586}	$5.639^{+9.499}_{-2.810}$
Alt.	-152 ± 4	$3.23^{+1.13}_{-1.12}$	2879^{+266}_{-464}	5859^{+836}_{-524}	13^{+16}_{-6}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

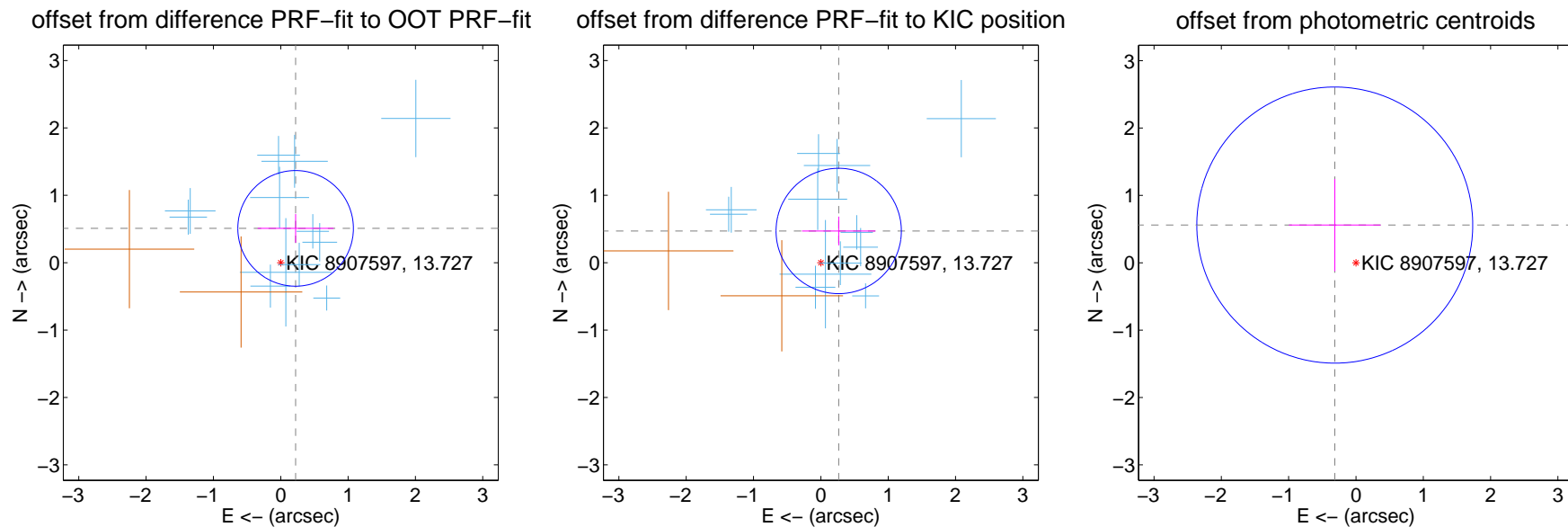
DV Centroid Data

Supplemental centroid analysis for 008907597-03. Kepler magnitude: 13.73. Transit SNR 10.08

There are 12 quarters with good PRF difference image offsets

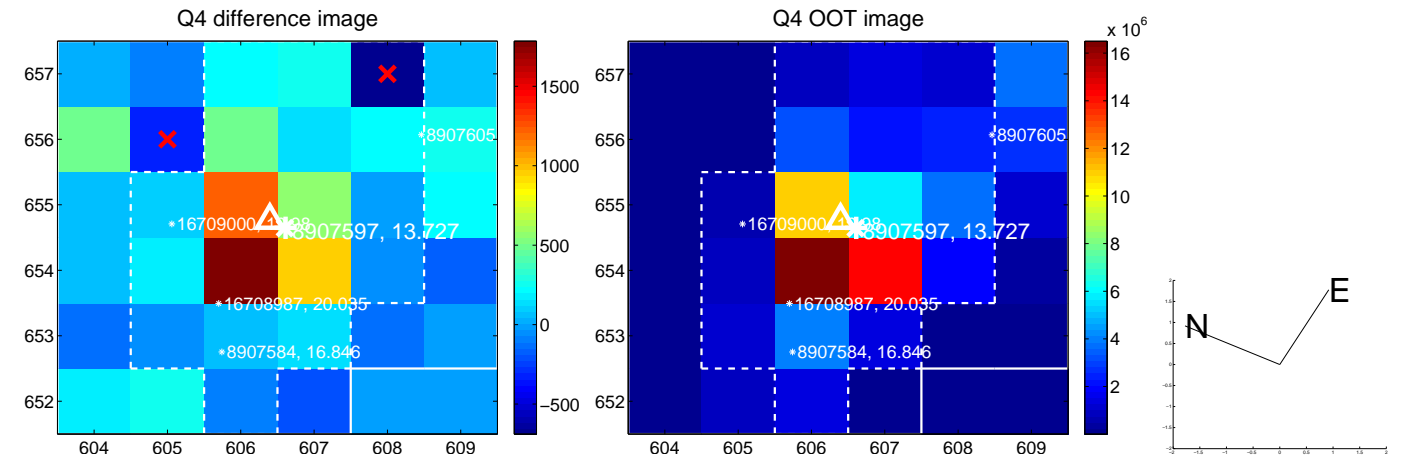
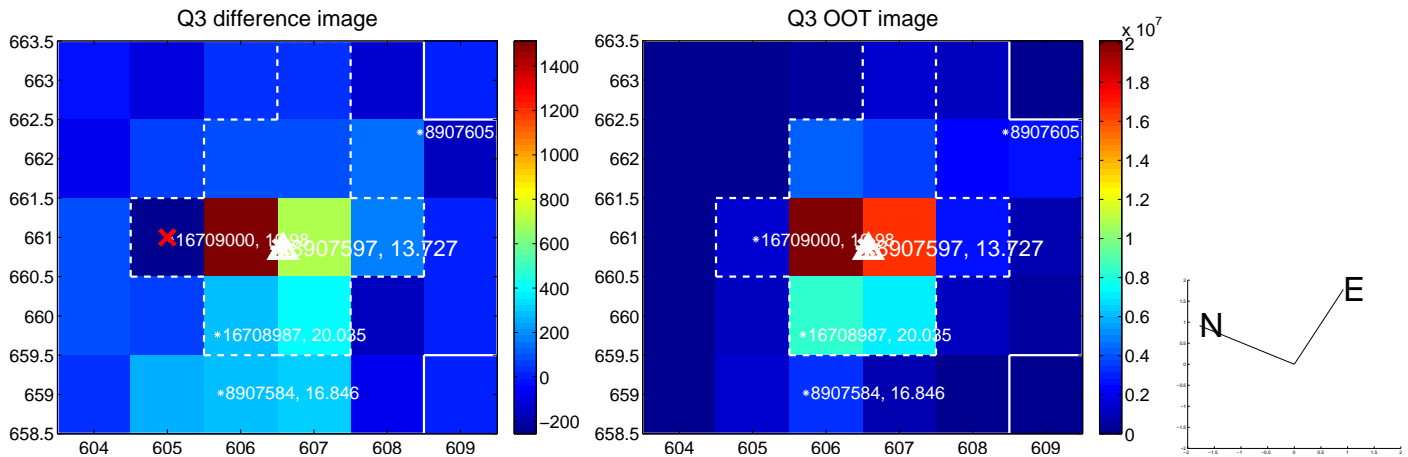
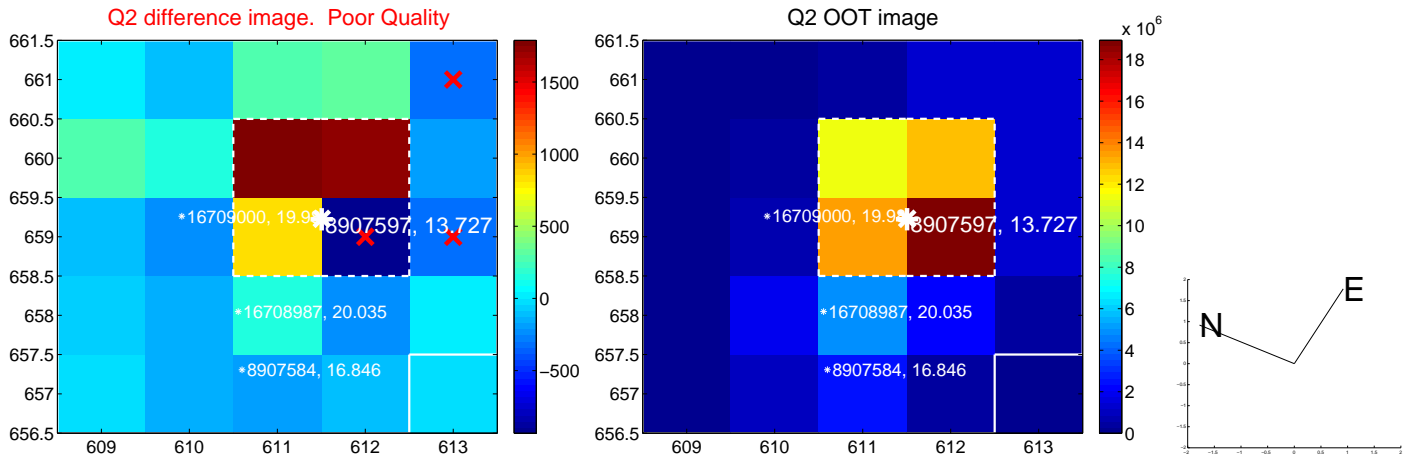
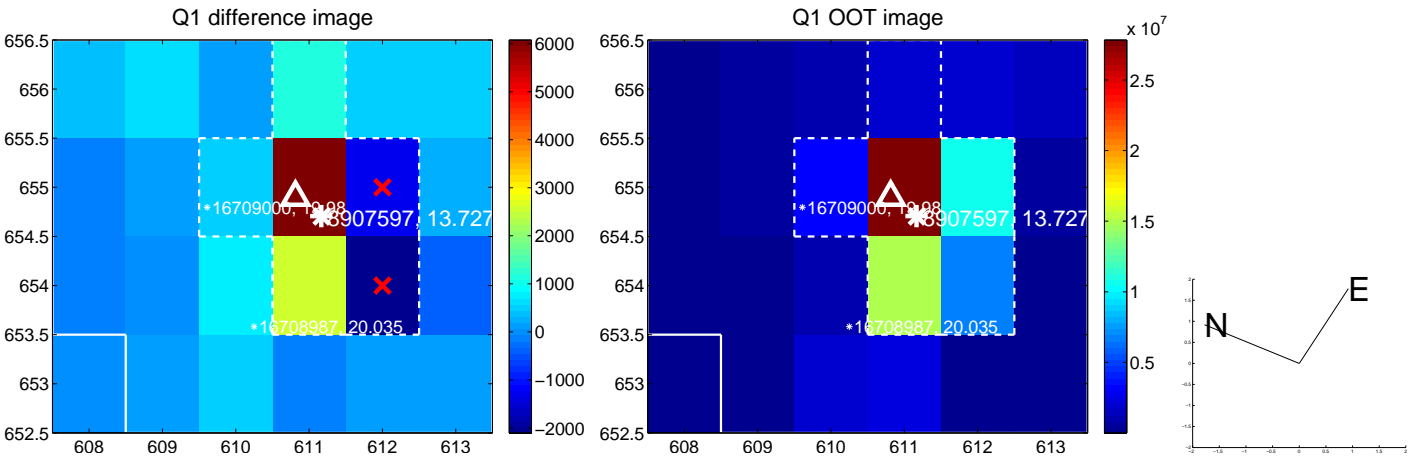
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.555 ± 0.286	1.94	-0.221 ± 0.564	0.509 ± 0.213
PRF-fit source offset from KIC position	0.540 ± 0.310	1.74	-0.265 ± 0.546	0.471 ± 0.214
photometric centroid source offset	0.64 ± 0.68	0.94	0.31 ± 0.68	0.56 ± 0.68

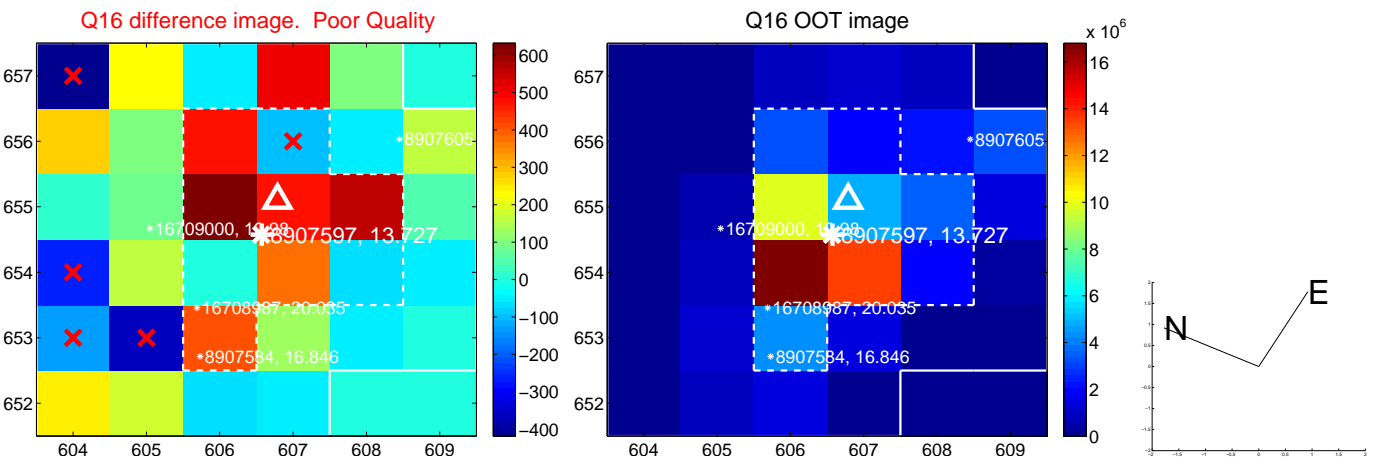
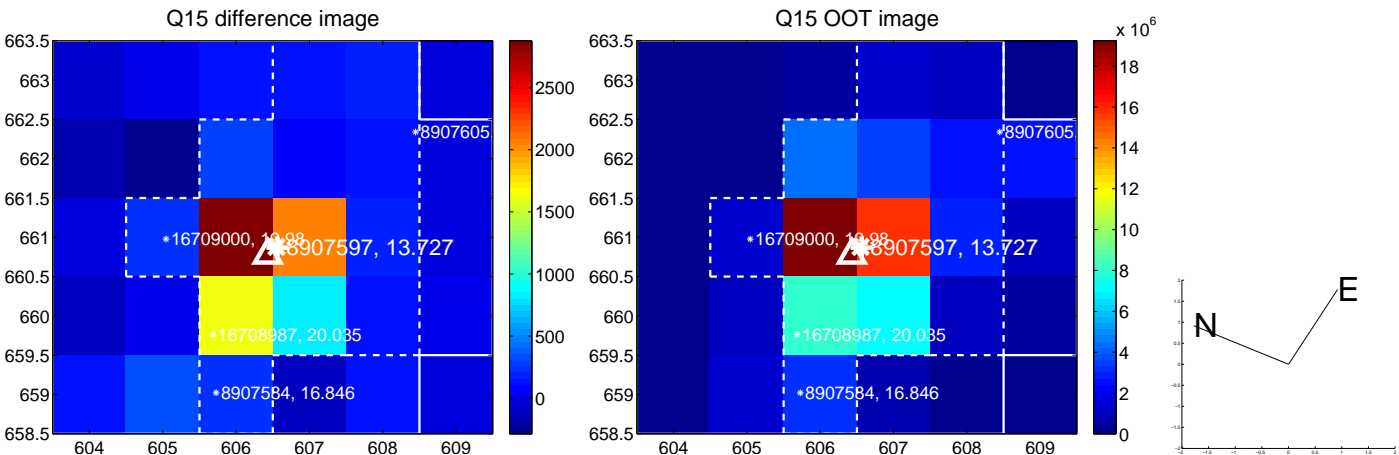
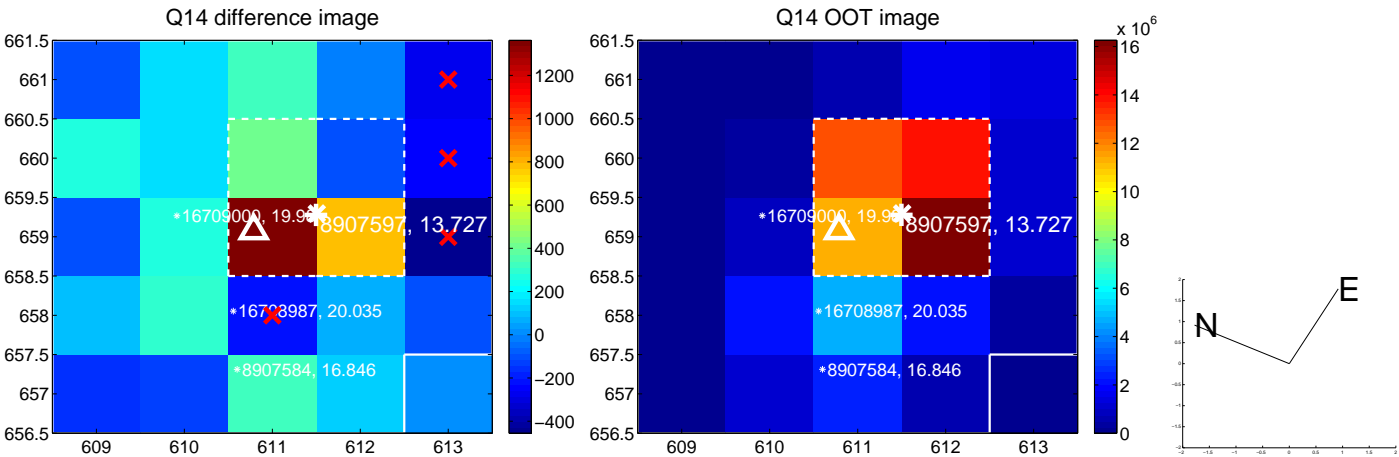
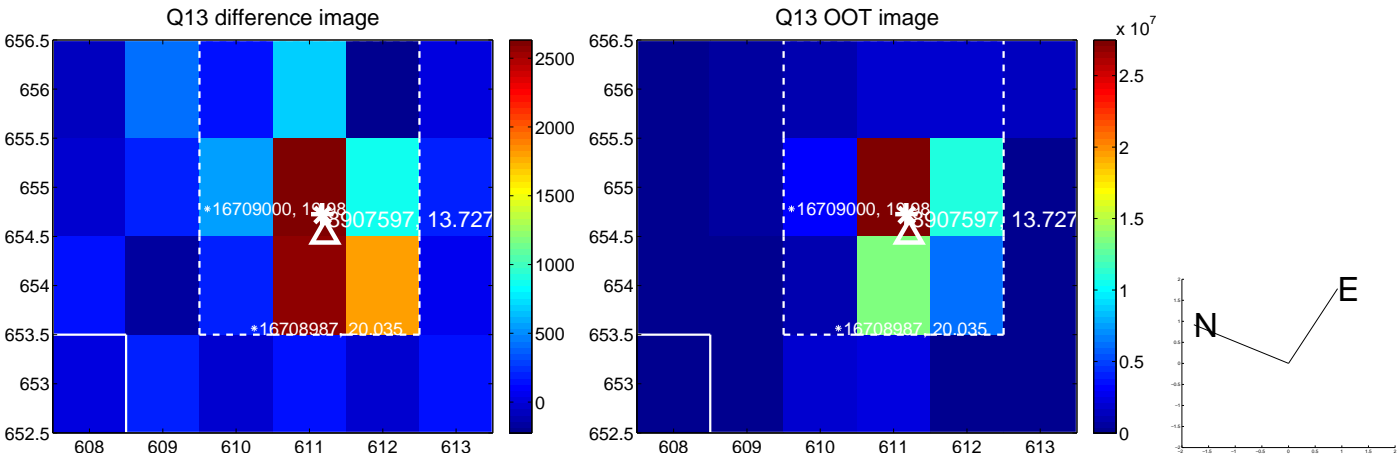


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

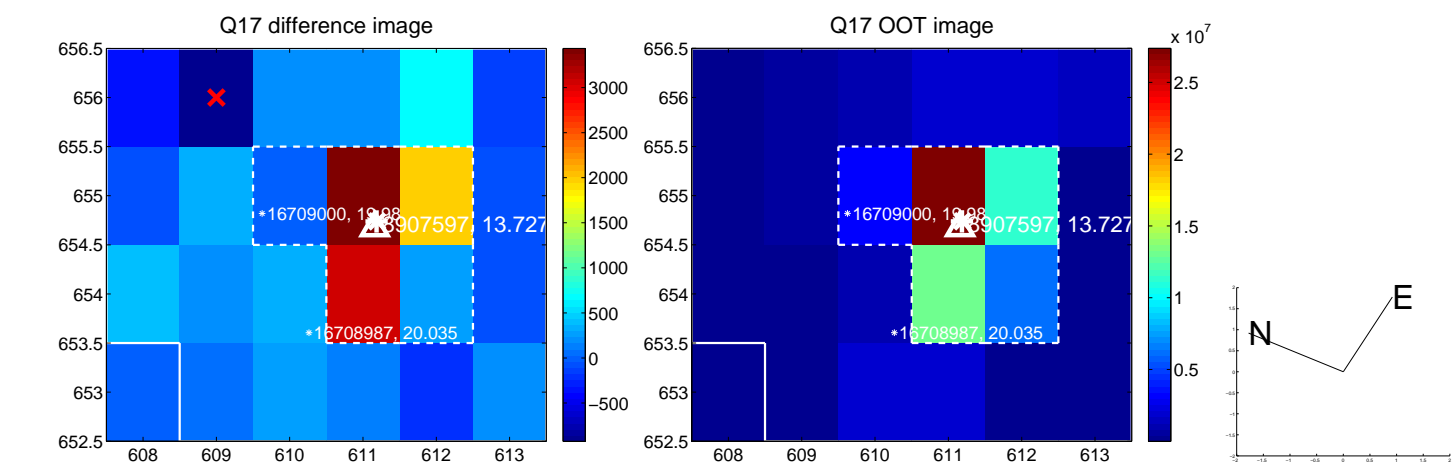
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



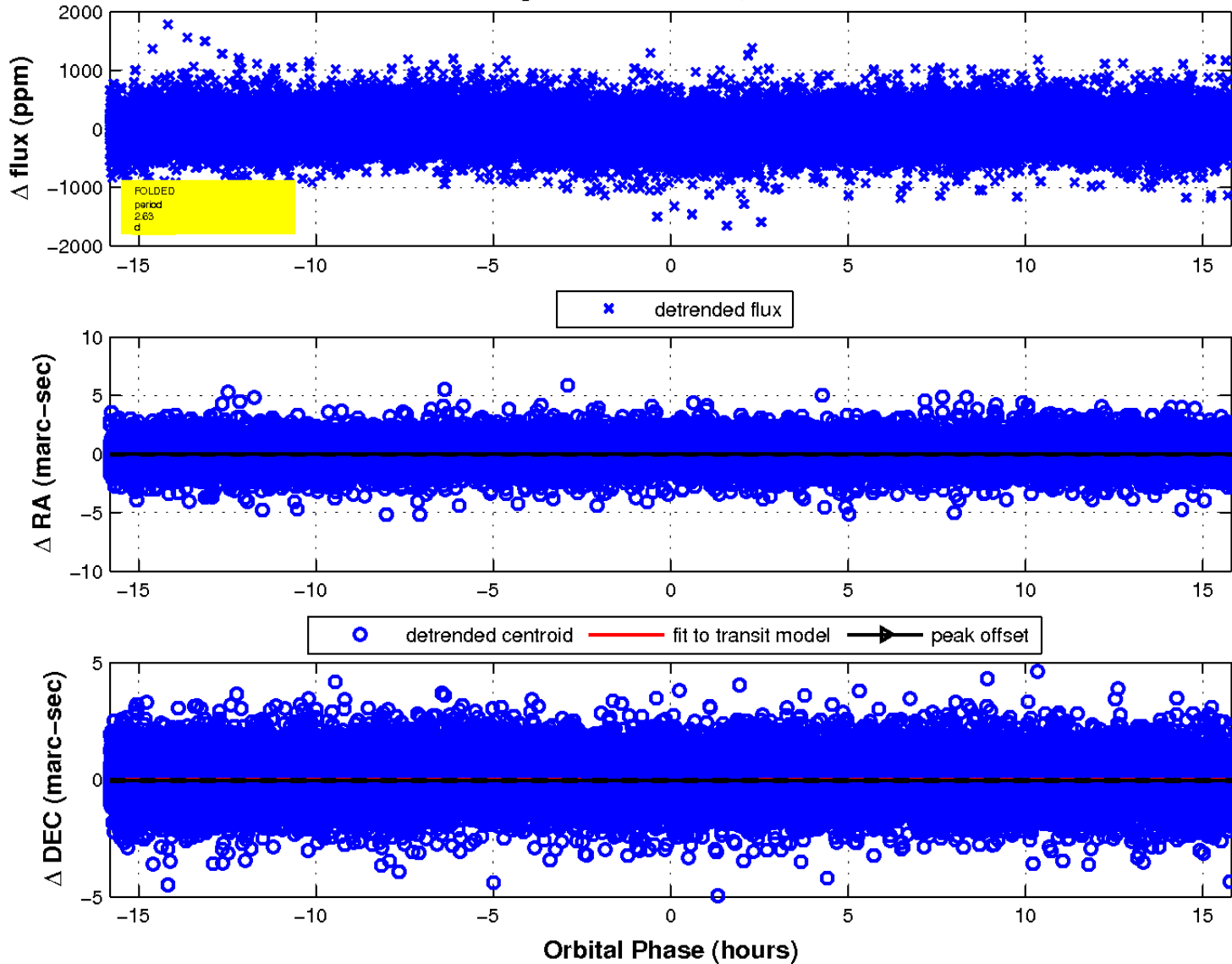
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

