

KIC 005817566

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})
005817566-01	OBS	6138.01	4.206076	132.255235	110861.9	9.760	348.5	553.1	3.19	8212	126.68	9960.02
005817566-02	OBS	No	4.206034	134.369148	5645.6	9.171	24.2	42.6	3.19	8212	40.77	9960.15
005817566-03	OBS	No	312.905915	158.568433	266.1	6.000	19.4	-1.0	3.19	8212	5.25	31.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005817566-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
005817566-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005817566-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—CENT_NOFITS

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.

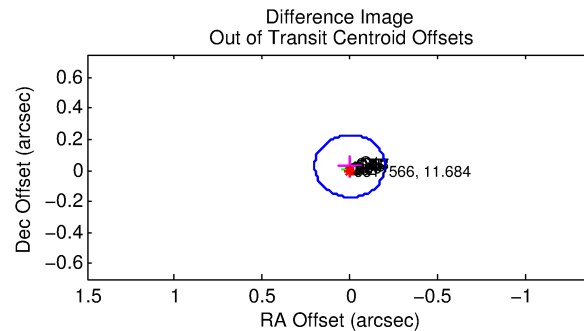
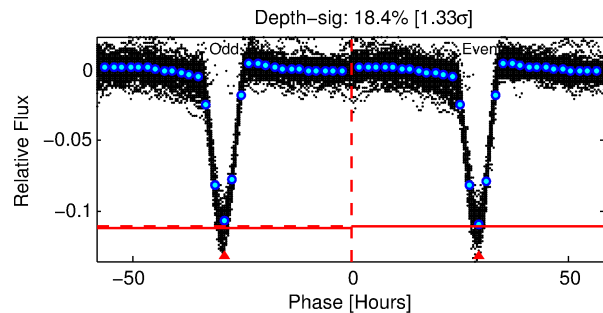
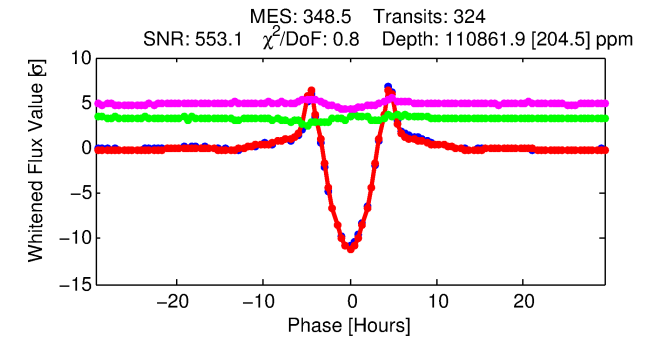
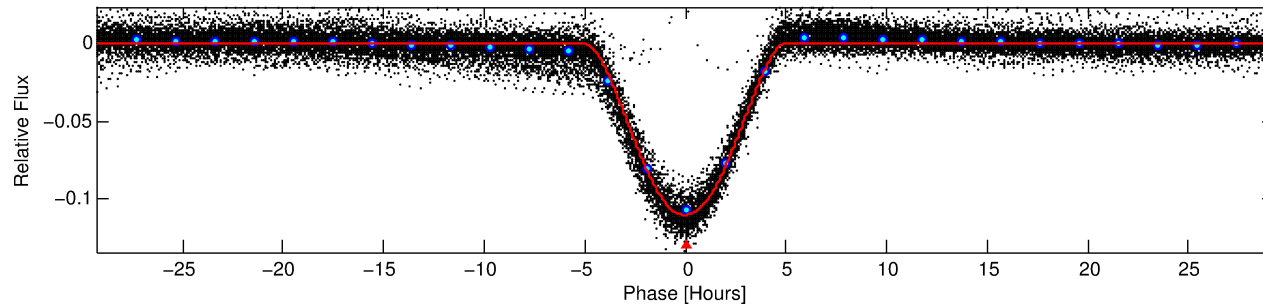
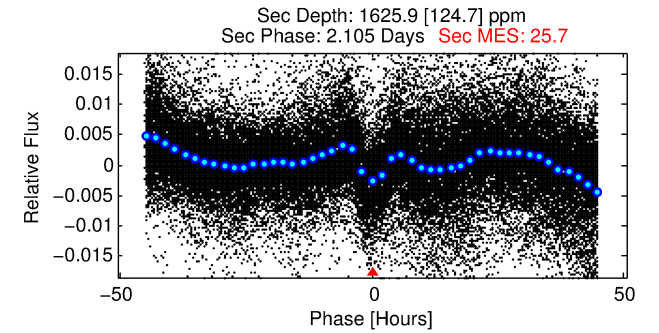
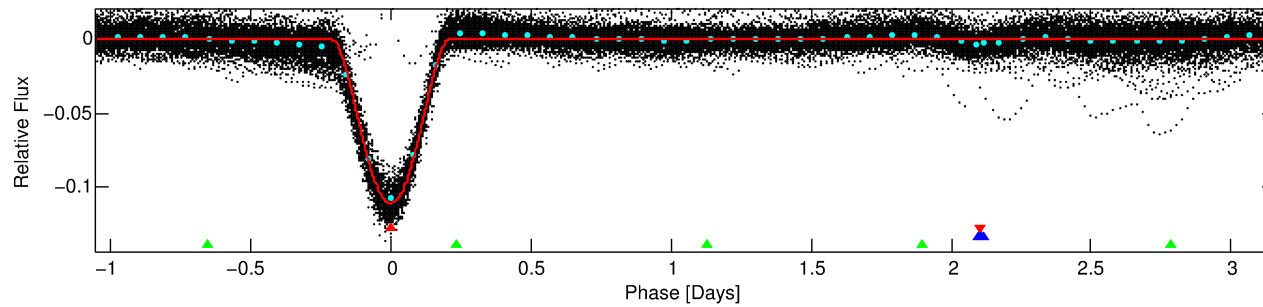
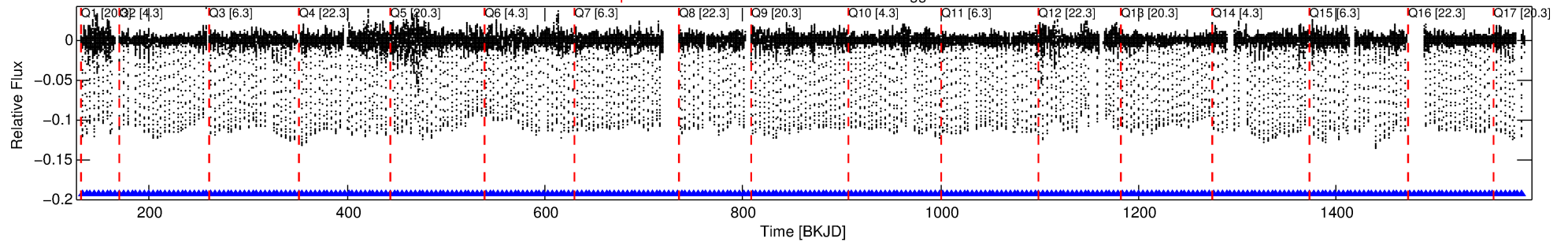
Ephemeris Match Information For 005817566-01

No Significant Match Found

DV One-Page Summary

KIC: 5817566 Candidate: 1 of 3 Period: 4.206 d
KOI: K06138.01 Corr: 0.987

Kp: 11.68 R*: 3.19 Rs Teff: 8212.0 K Logg: 3.74 Fe/H: -0.180



DV Fit Results:

Period = 4.20608 [0.00000] d
Epoch = 132.2552 [0.0002] BKJD
Rp/R* = 0.3645 [0.0020]
a/R* = 3.85 [0.00]
b = 0.77 [0.00]
Seff = 9960.02 [7464.74]
Teq = 2547 [477] K
Rp = 126.68 [58.27] Re
a = 0.0644 [0.0291] AU
Ag = 0.23 [0.17] [-4.52 σ]
Teffp = 2731 [126] K [0.37 σ]

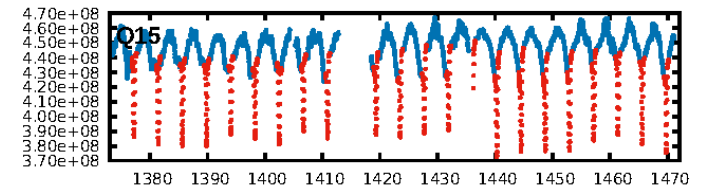
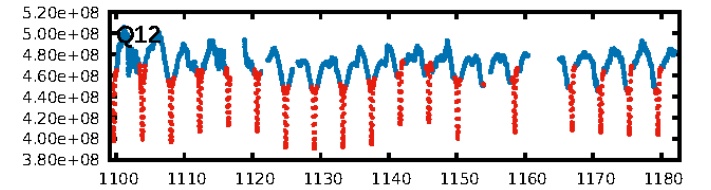
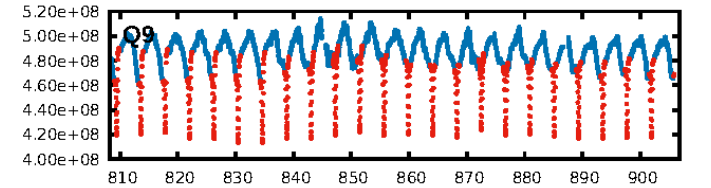
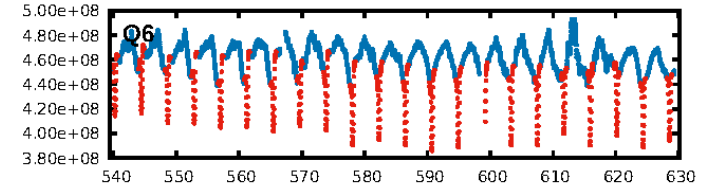
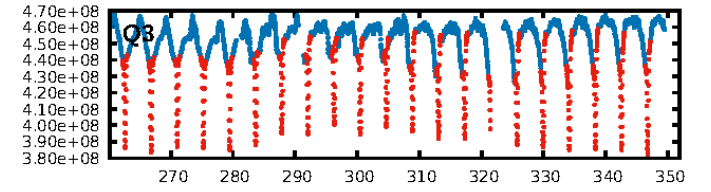
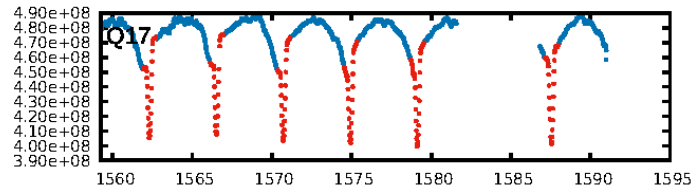
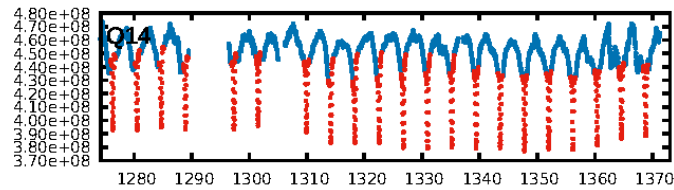
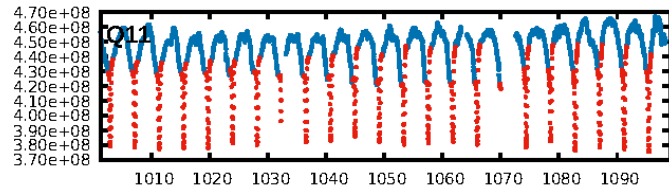
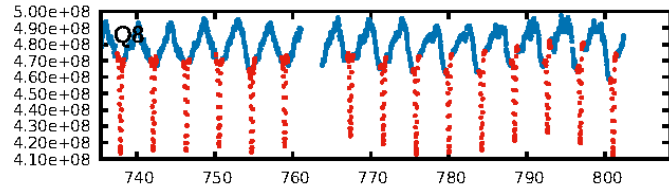
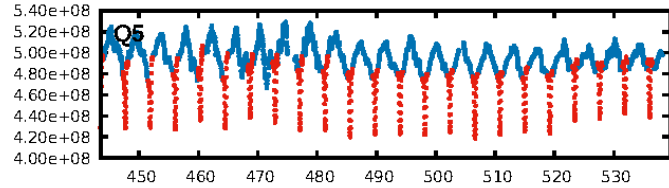
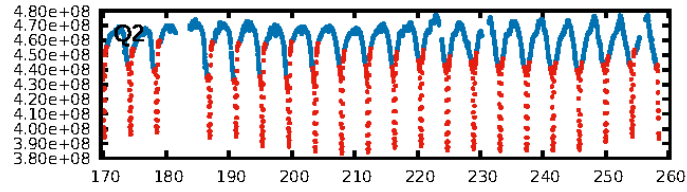
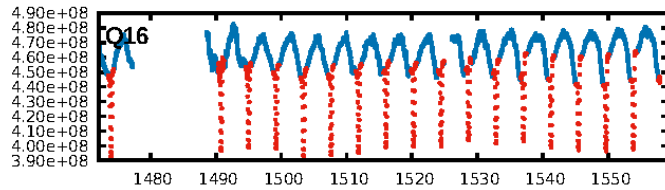
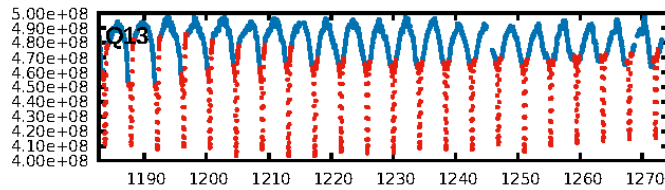
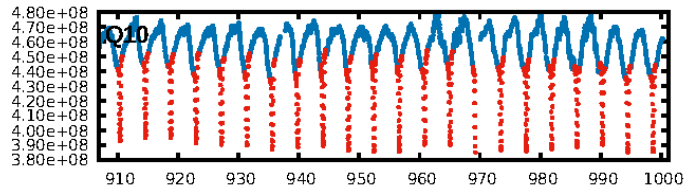
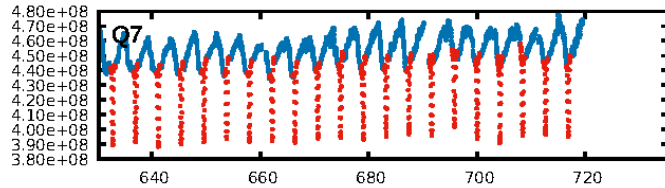
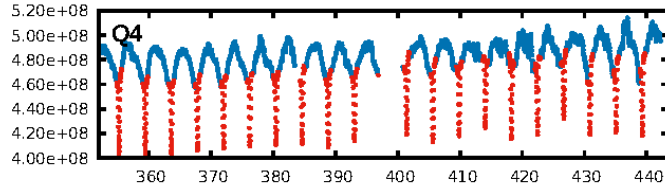
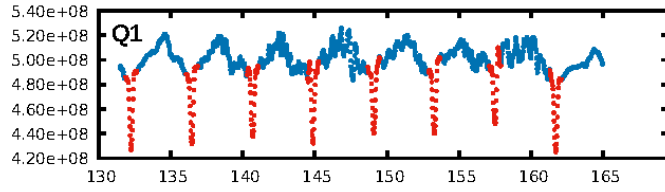
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: 100.0% [646.68 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [310/310]
GhostDiagnostic-chr: 1.609
Centroid-sig: N/A
Centroid-so: 0.283 arcsec [303.71 σ]
OotOffset-rm: 0.028 arcsec [0.43 σ]
KicOffset-rm: 0.073 arcsec [1.05 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

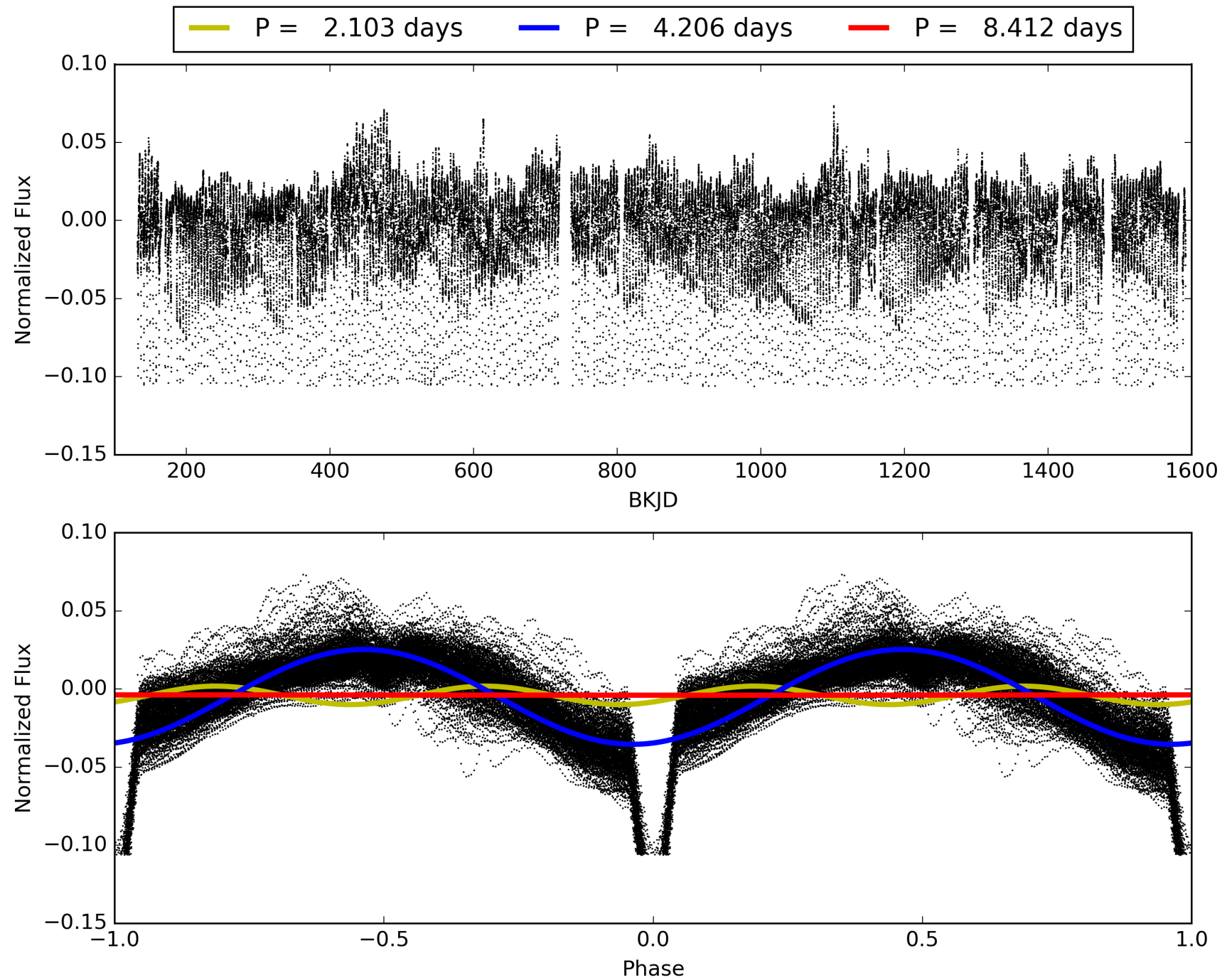
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005817566-01, PDC Light Curves

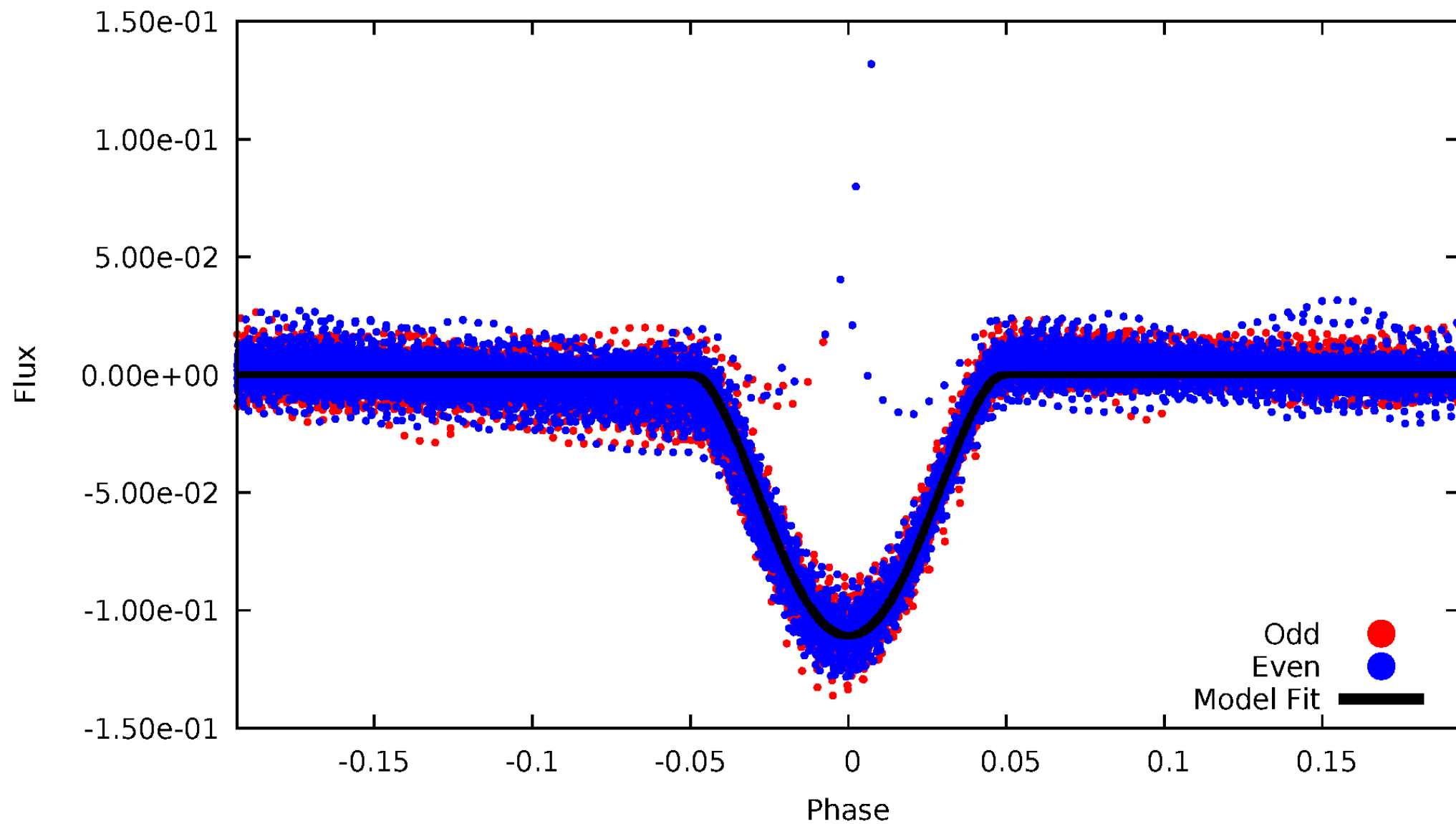


TCE 005817566-01



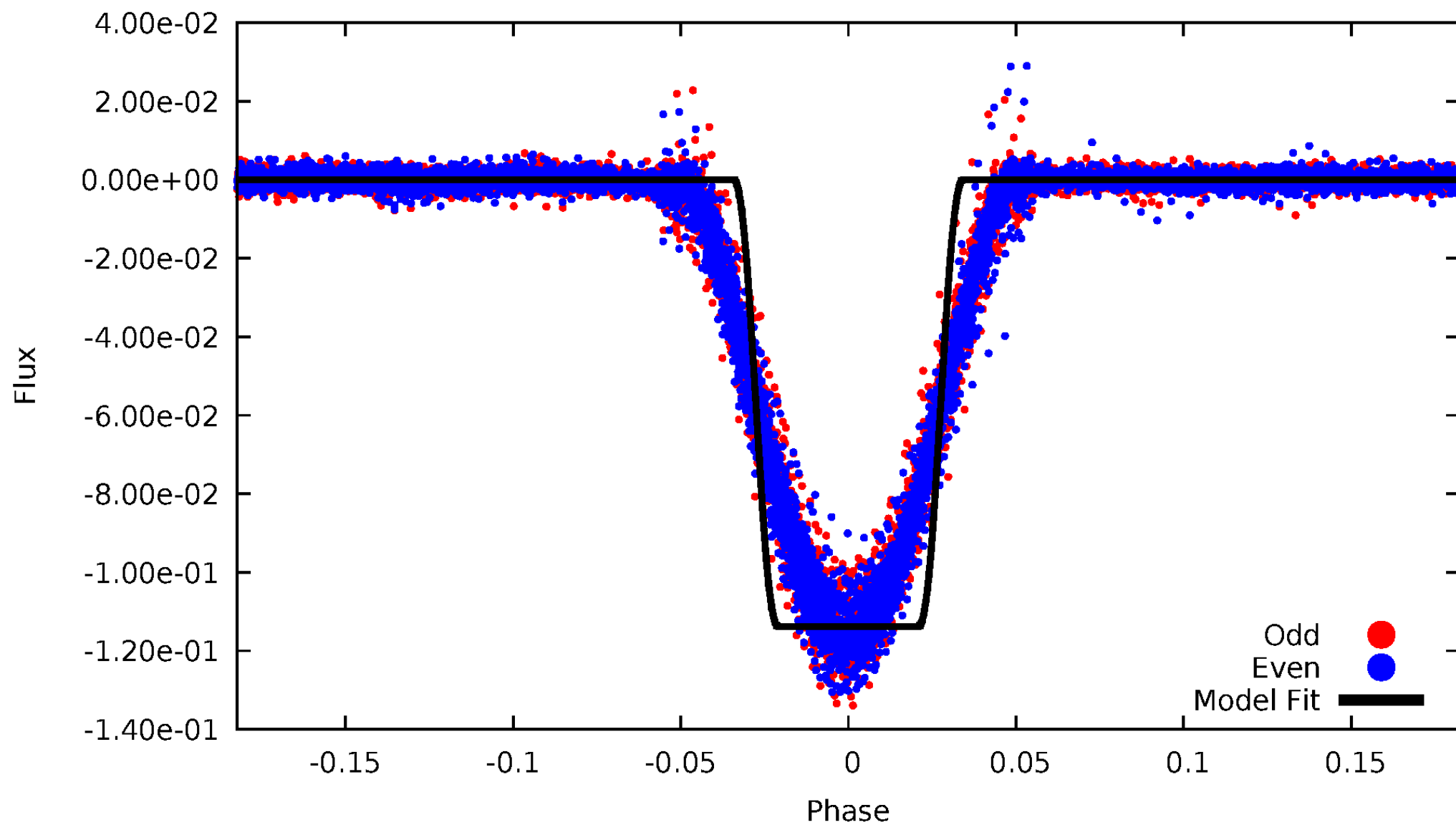
DV Odd/Even

TCE 005817566-01



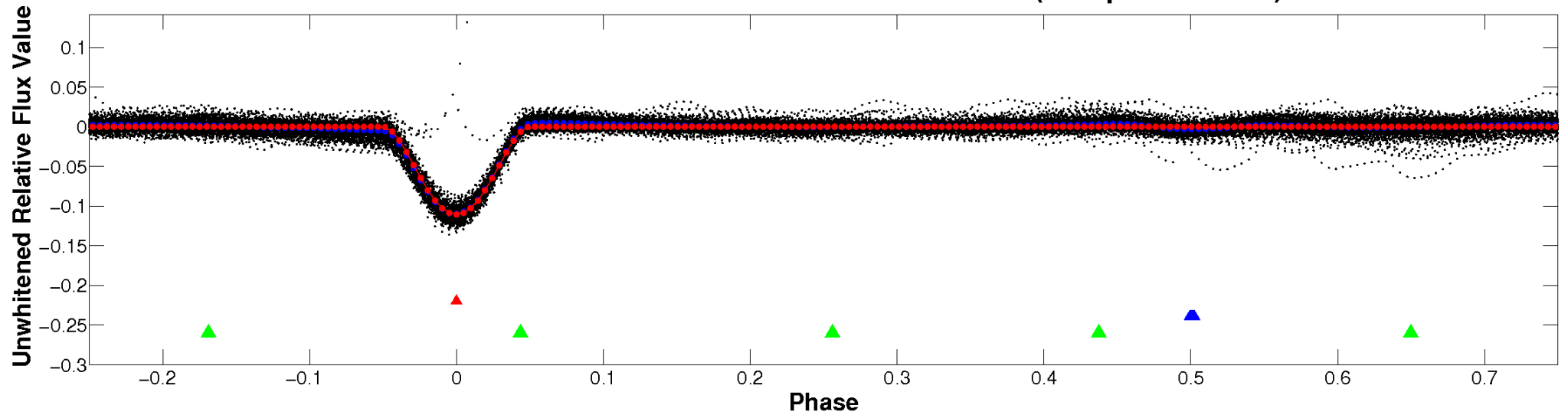
ALT Odd/Even

TCE 005817566-01

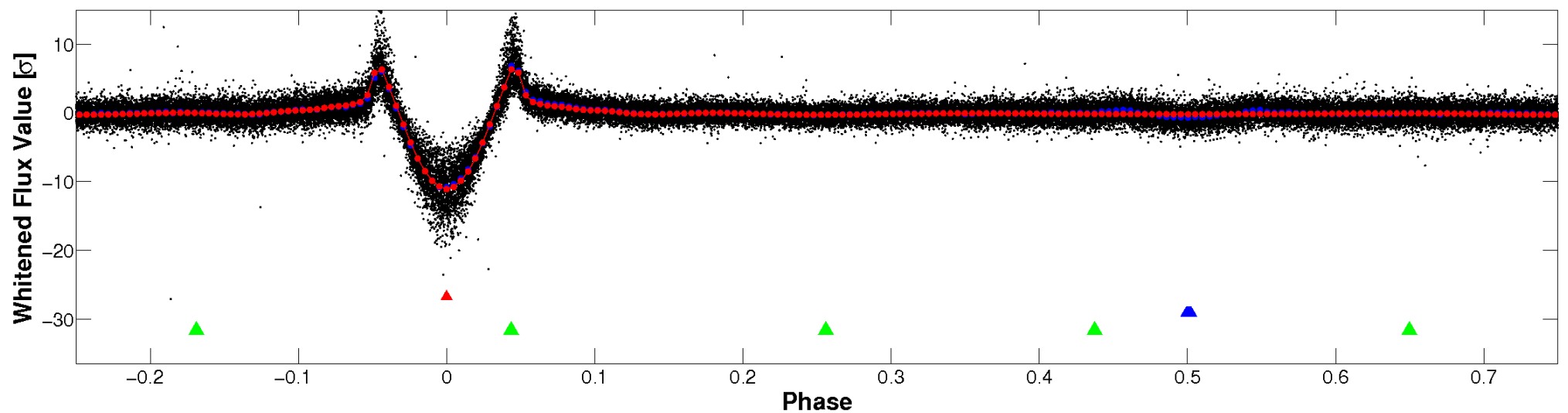


Non-Whitened Vs. Whitened Light Curve

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

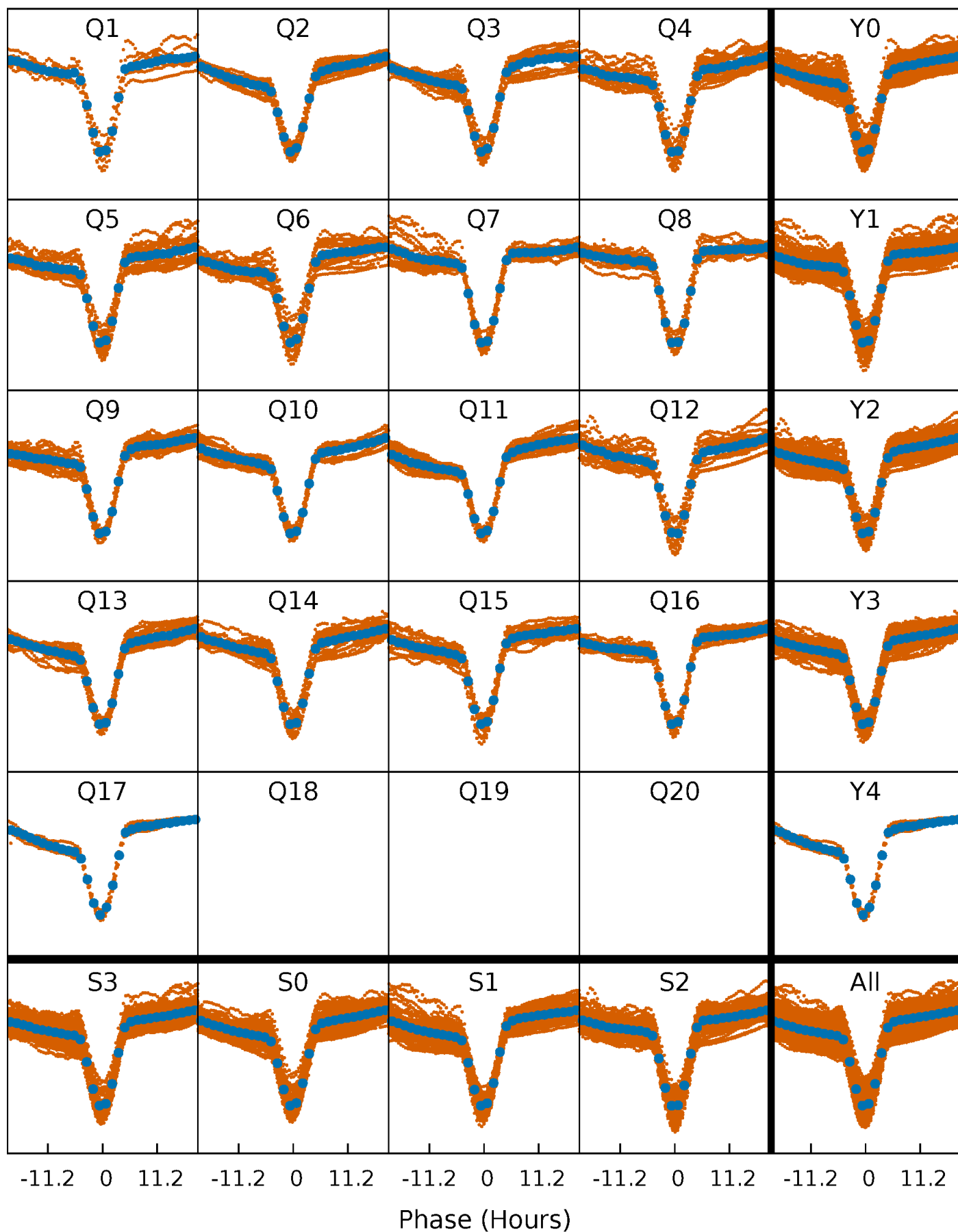


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



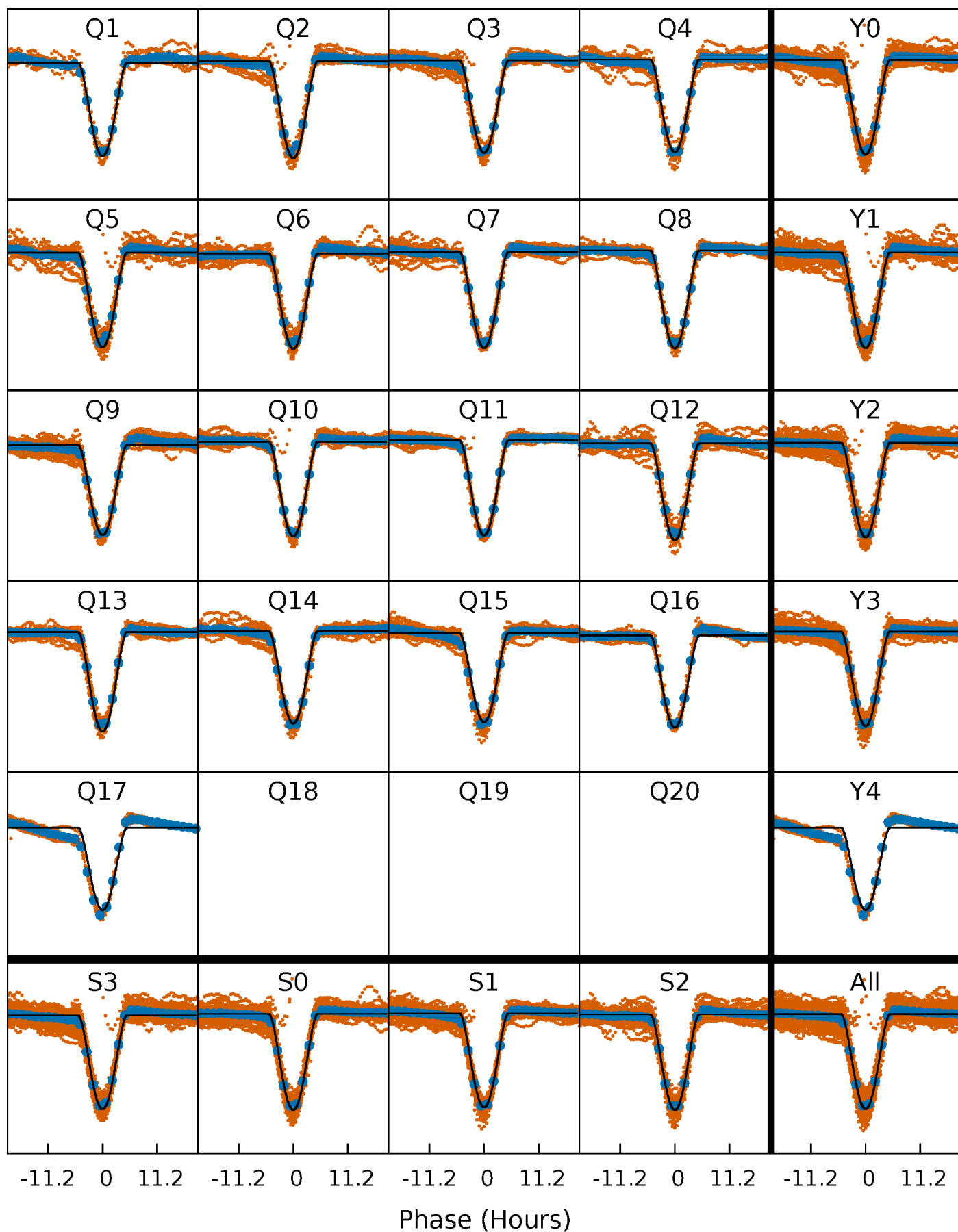
PDC Quarter-Phased Transit Curves

TCE 005817566-01 P= 4.206076 Days $T_0=132.255235$ (BKJD)



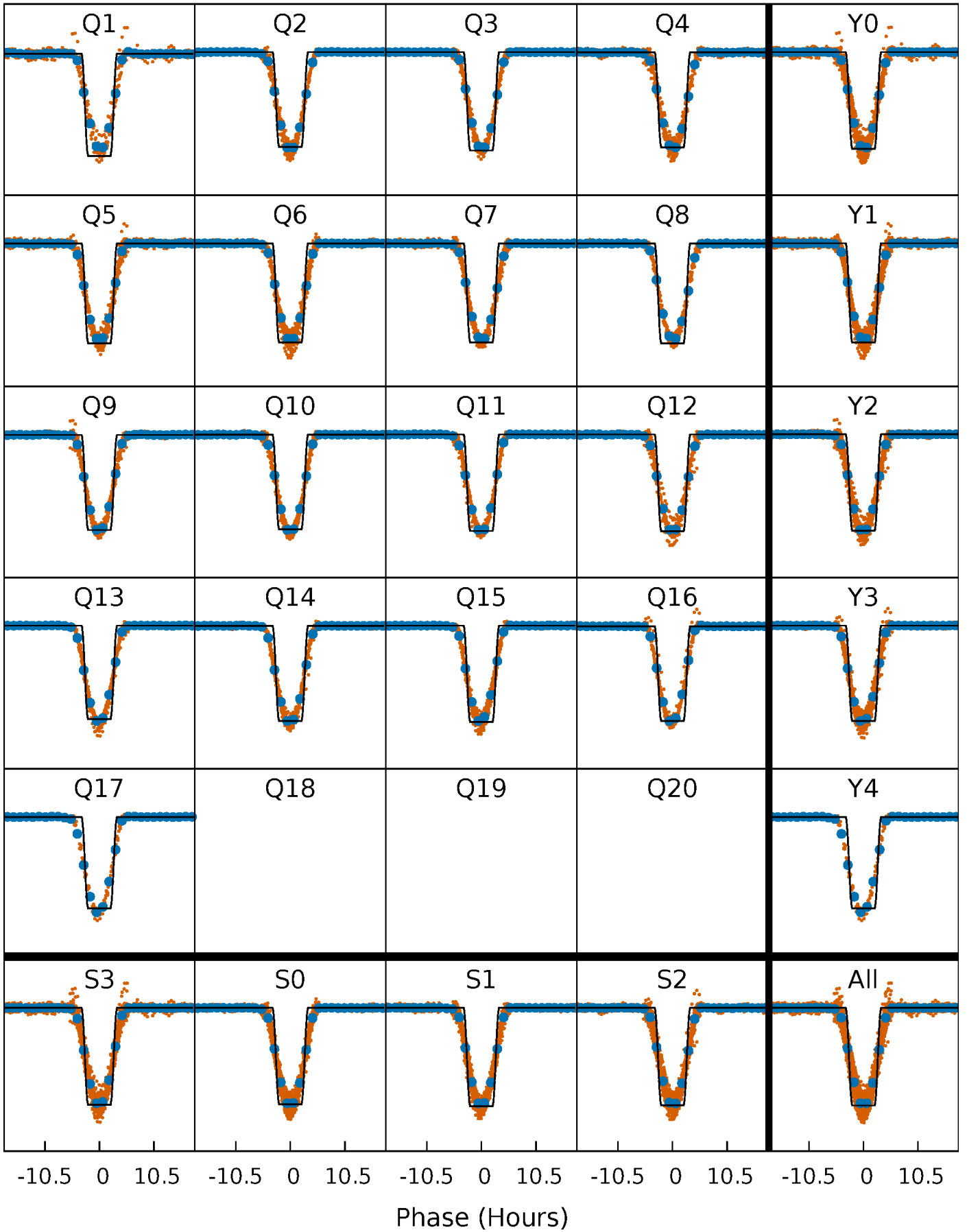
DV Quarter-Phased Transit Curves

TCE 005817566-01 P= 4.206076 Days $T_0=132.255235$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

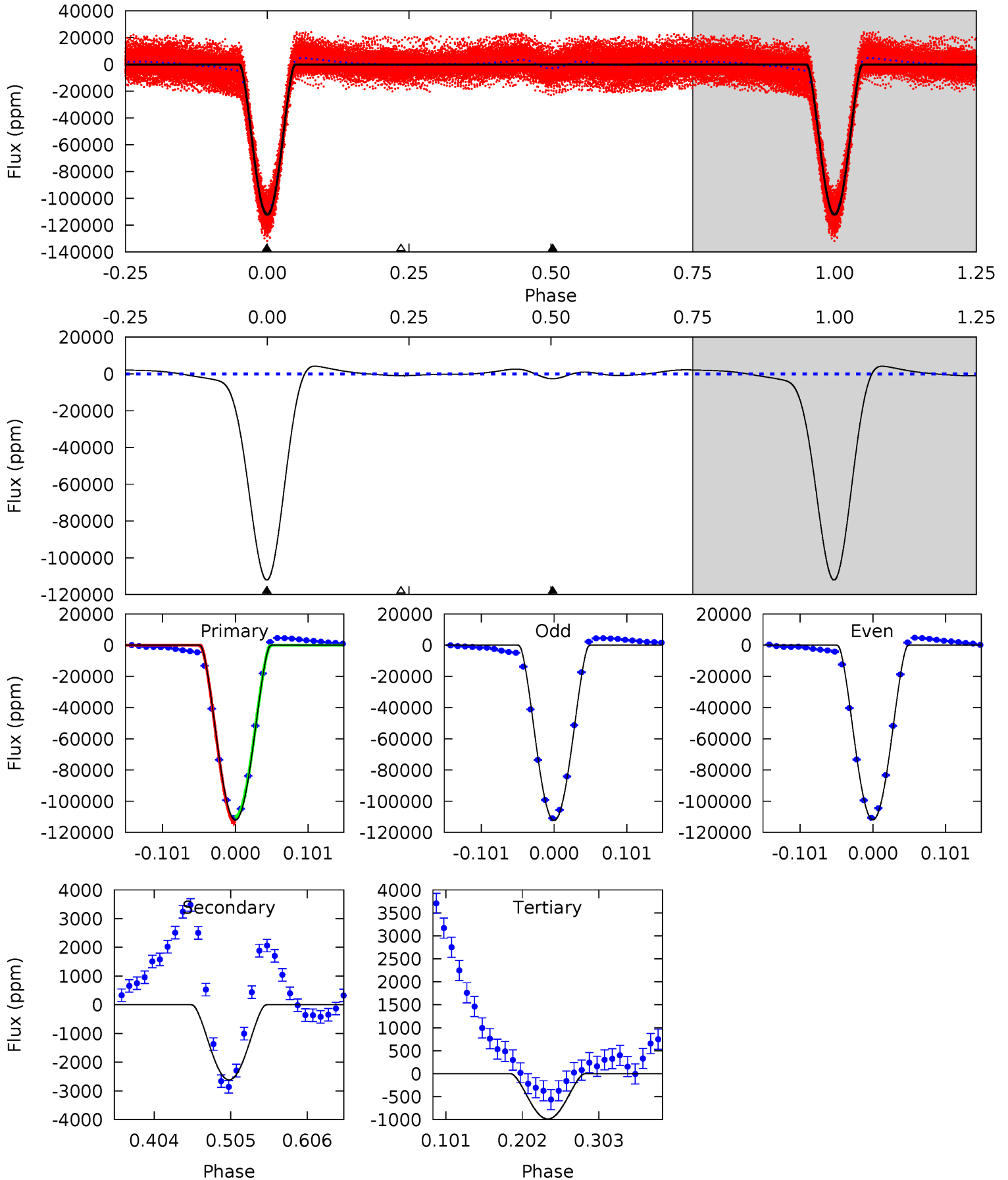
TCE 005817566-01 P= 4.206110 Days $T_0=132.248346$ (BKJD)



DV Model-Shift Uniqueness Test

005817566-01, P = 4.206076 Days, E = 128.049159 Days

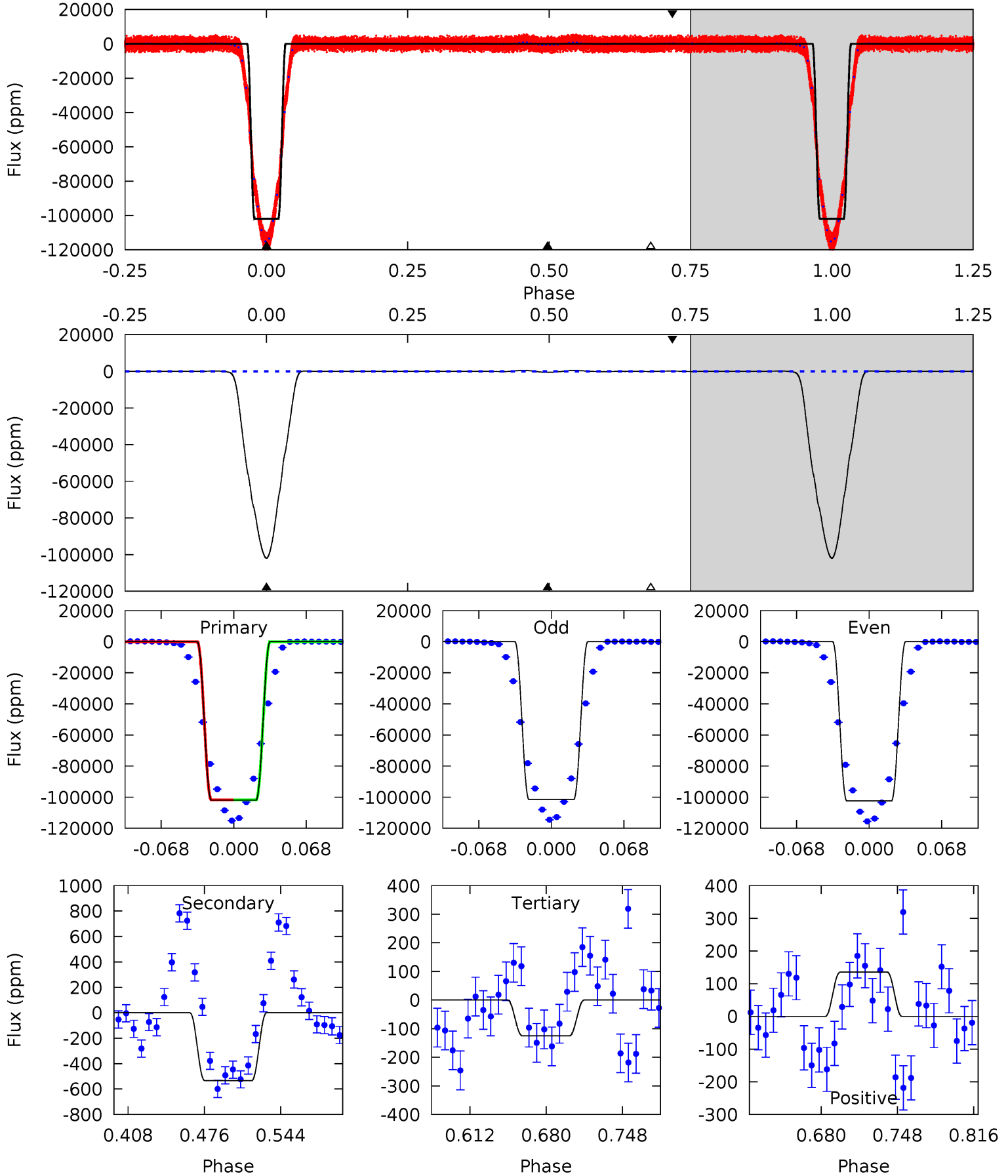
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1626	37.9	14.3	0	4.56	1.64	17.6	1612	1626	23.6	37.9	3.58	0.98	0.04	27.8



Alt Model-Shift Uniqueness Test

005817566-01, P = 4.206110 Days, E = 128.042236 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4028	21.1	4.94	5.35	4.65	1.82	2.64	4023	4022	16.1	15.7	17.0	1.00	0.01	0.34



Stellar Parameters For KIC 005817566

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8212^{+229}_{-343}	$3.736^{+0.432}_{-0.108}$	$-0.180^{+0.200}_{-0.350}$	$3.185^{+0.789}_{-1.465}$	$2.016^{+0.372}_{-0.496}$	$0.088^{+0.340}_{-0.031}$
	+3%/-4%	+12%/-3%	+111%/-194%	+25%/-46%	+18%/-25%	+387%/-35%
Source	KIC0	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 005817566-01 / KOI 6138.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2615 ± 69	$119.96^{+18.87}_{-30.08}$	3402^{+286}_{-388}	2870^{+318}_{-426}	$0.413^{+0.287}_{-0.086}$
Alt.	-533 ± 25	$112.05^{+18.15}_{-25.83}$	3427^{+272}_{-388}	-3103^{+344}_{-183}	$0.098^{+0.061}_{-0.022}$

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 $A_{\text{obs}} \gg 1.0$

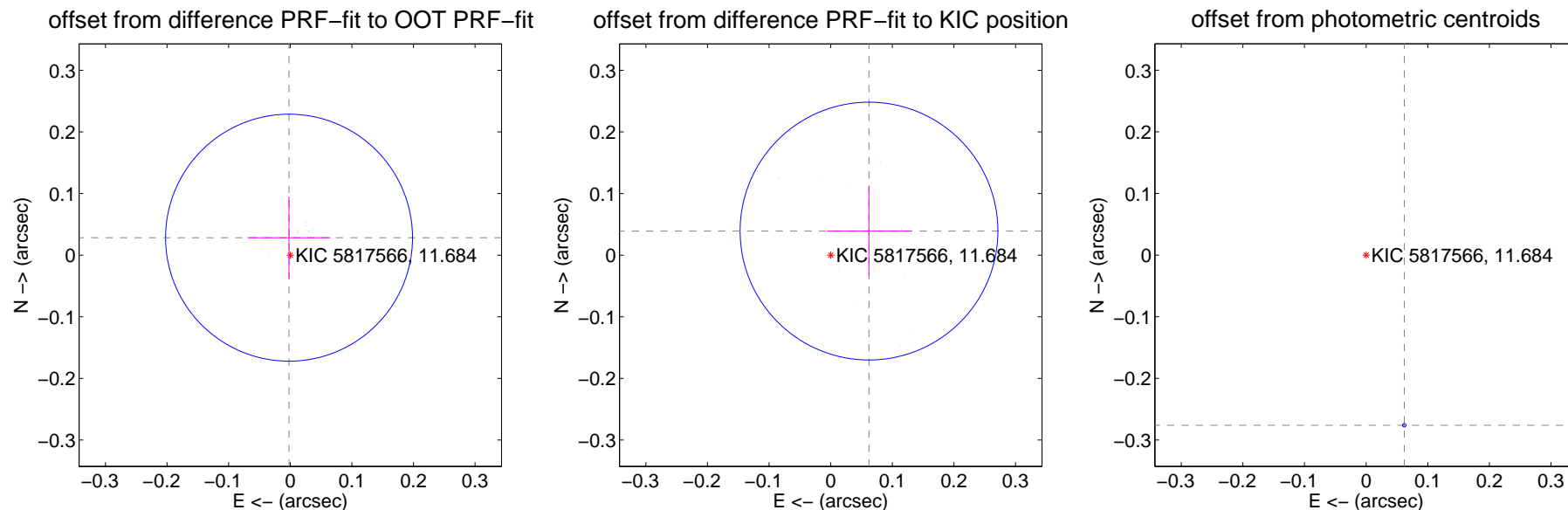
DV Centroid Data

Supplemental centroid analysis for 005817566-01. **Kepler magnitude: 11.68.** Transit SNR 553.10

There are 17 quarters with good PRF difference image offsets

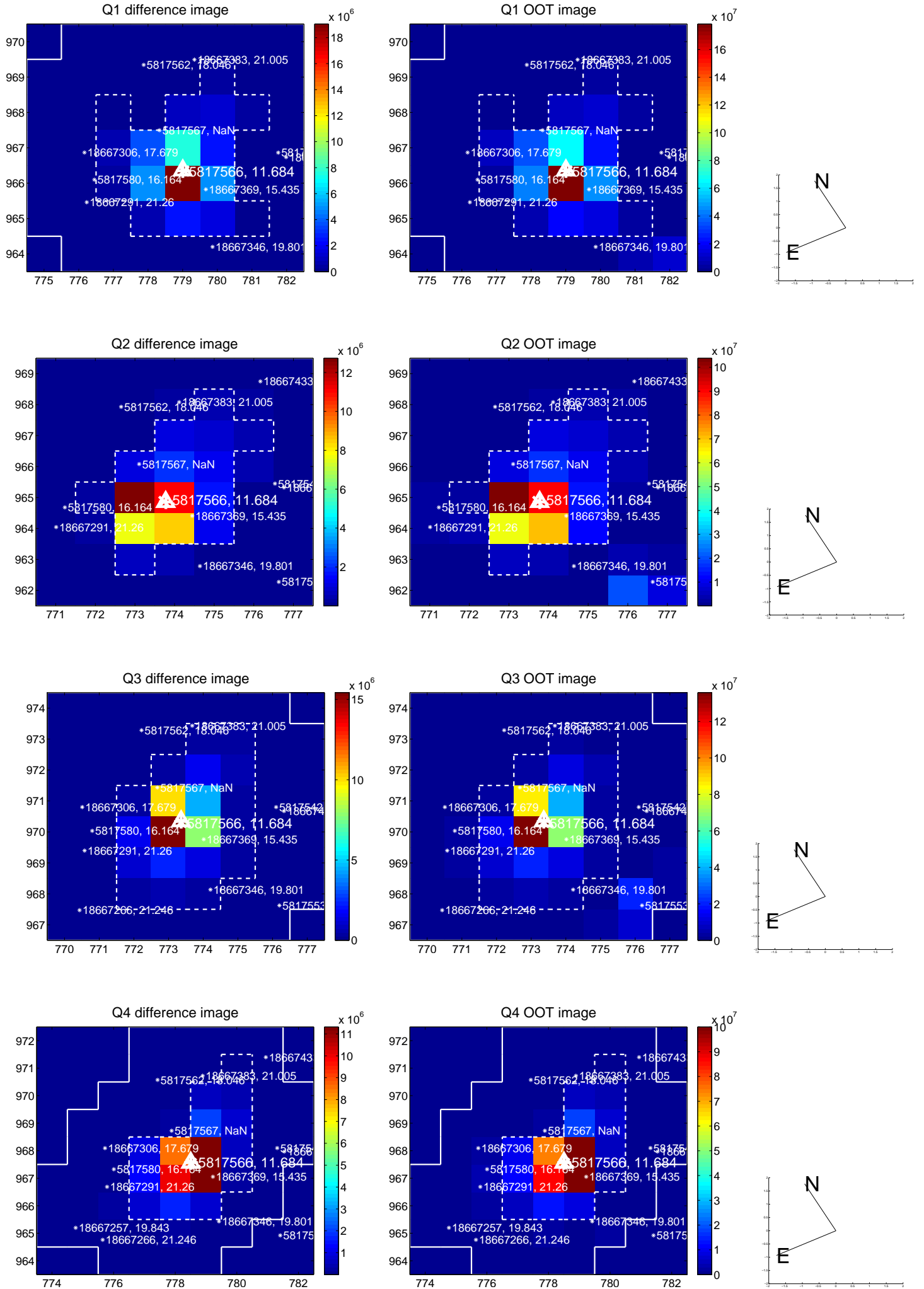
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.028 ± 0.067	0.43	0.002 ± 0.067	0.028 ± 0.067
PRF-fit source offset from KIC position	0.073 ± 0.070	1.05	-0.062 ± 0.068	0.039 ± 0.073
photometric centroid source offset	0.28 ± 0.00	303.71	-0.06 ± 0.00	-0.28 ± 0.00

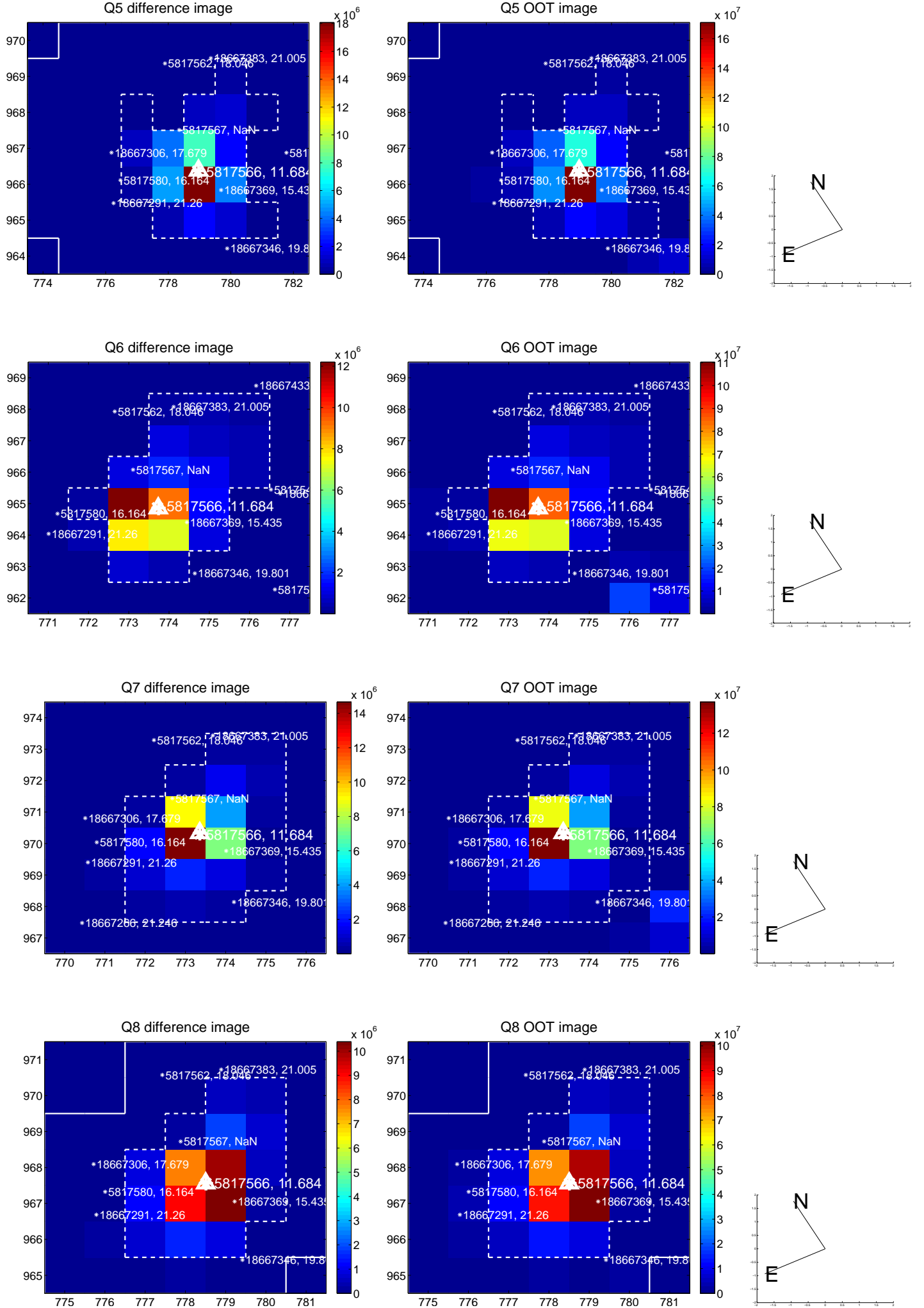


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

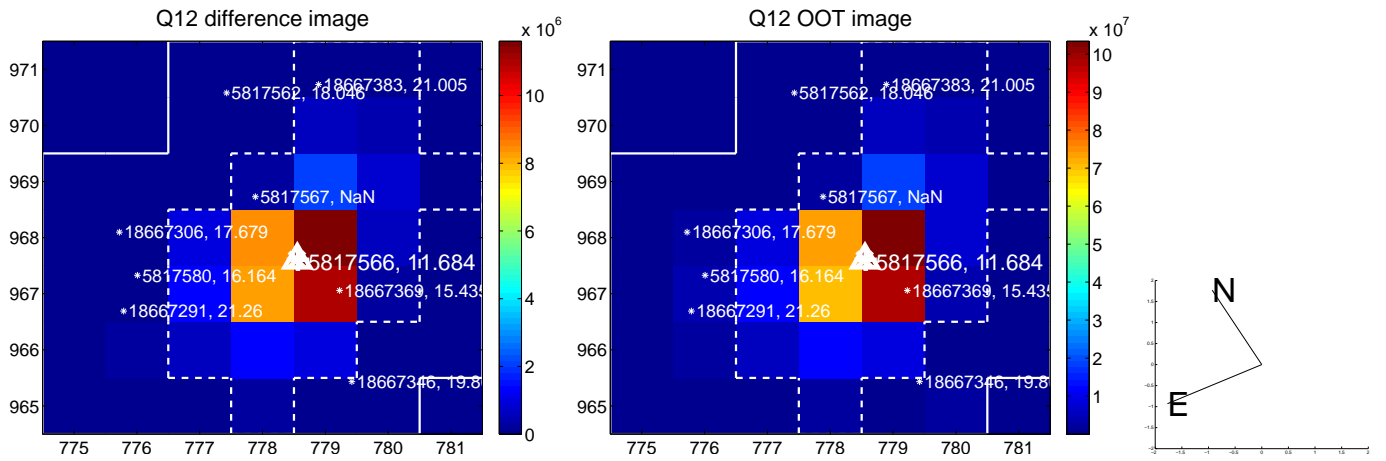
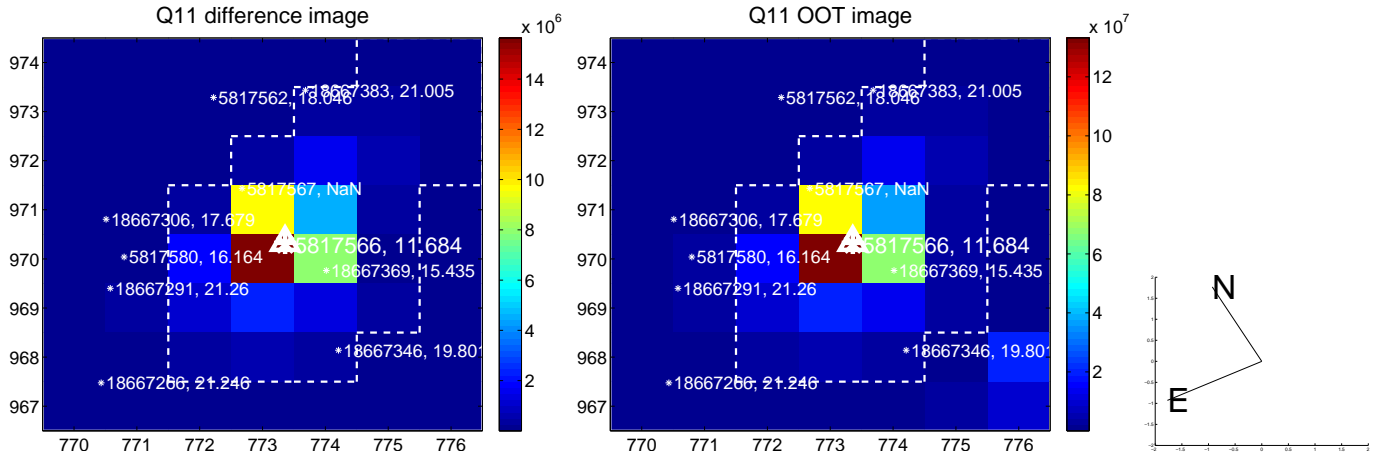
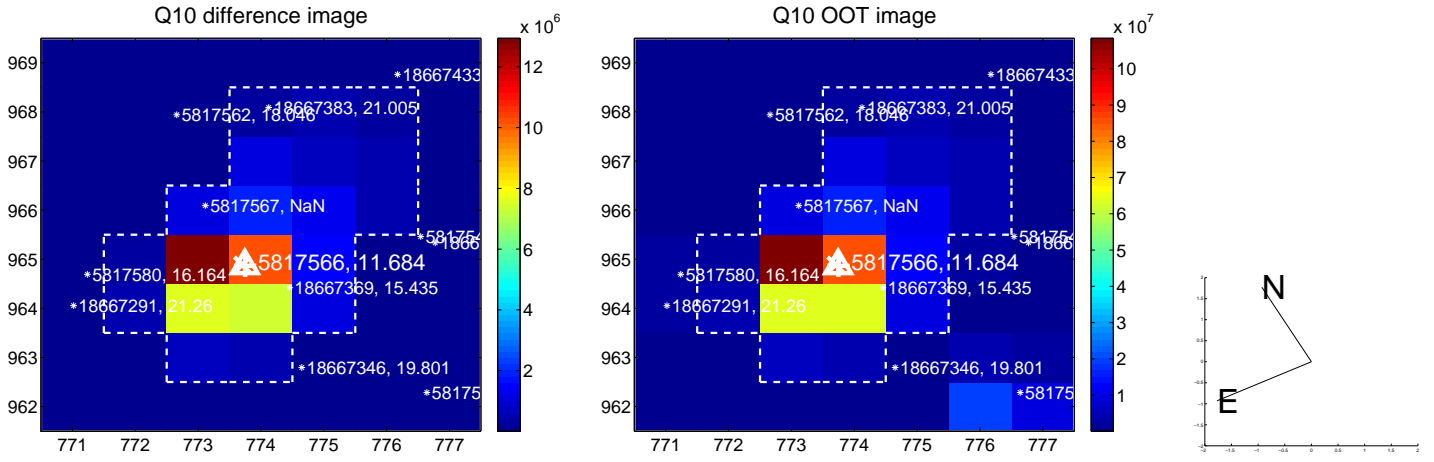
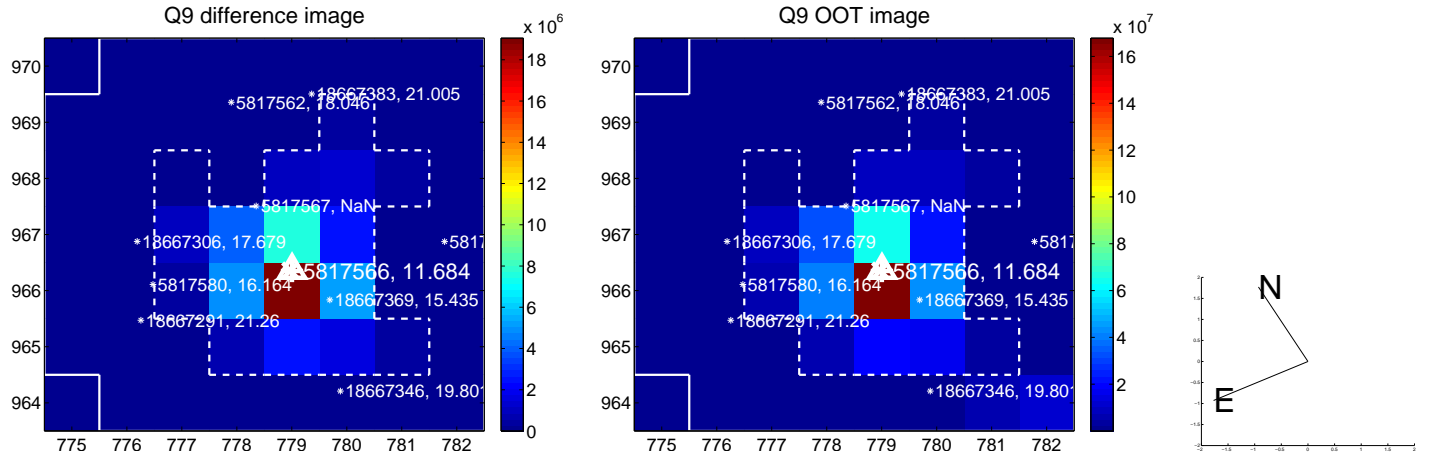
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



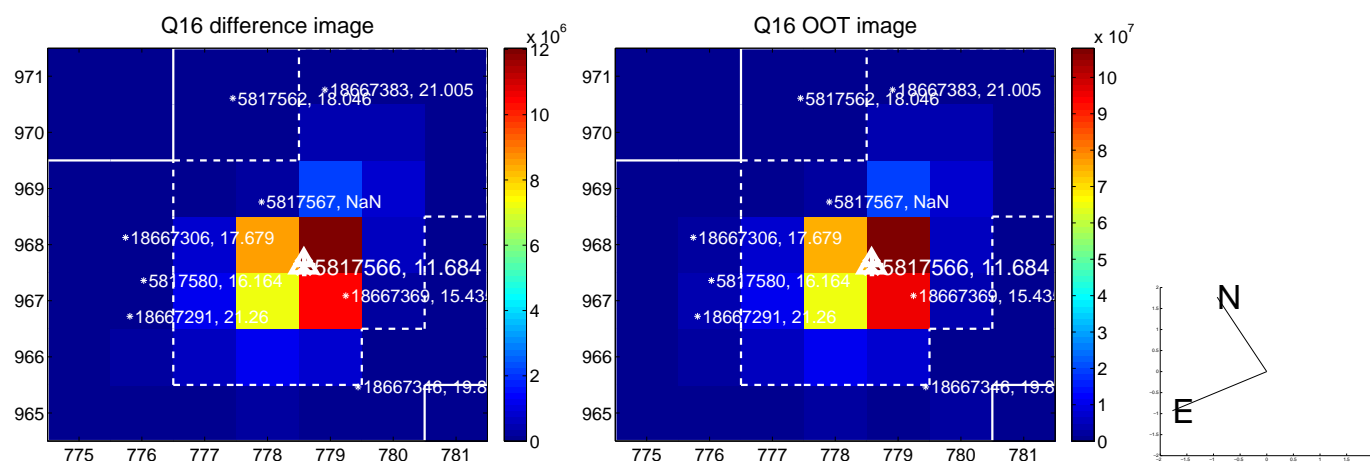
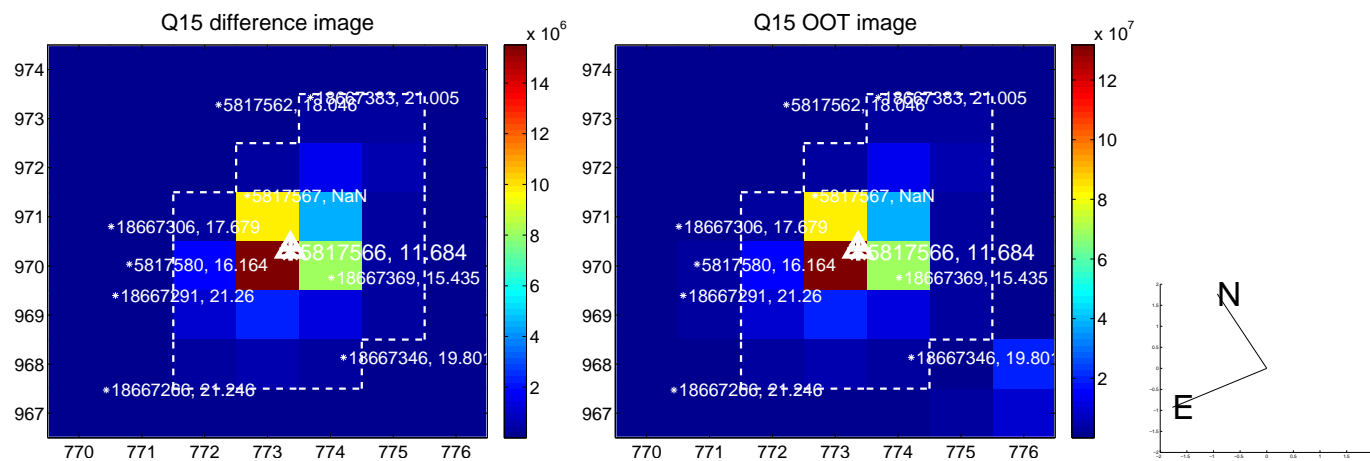
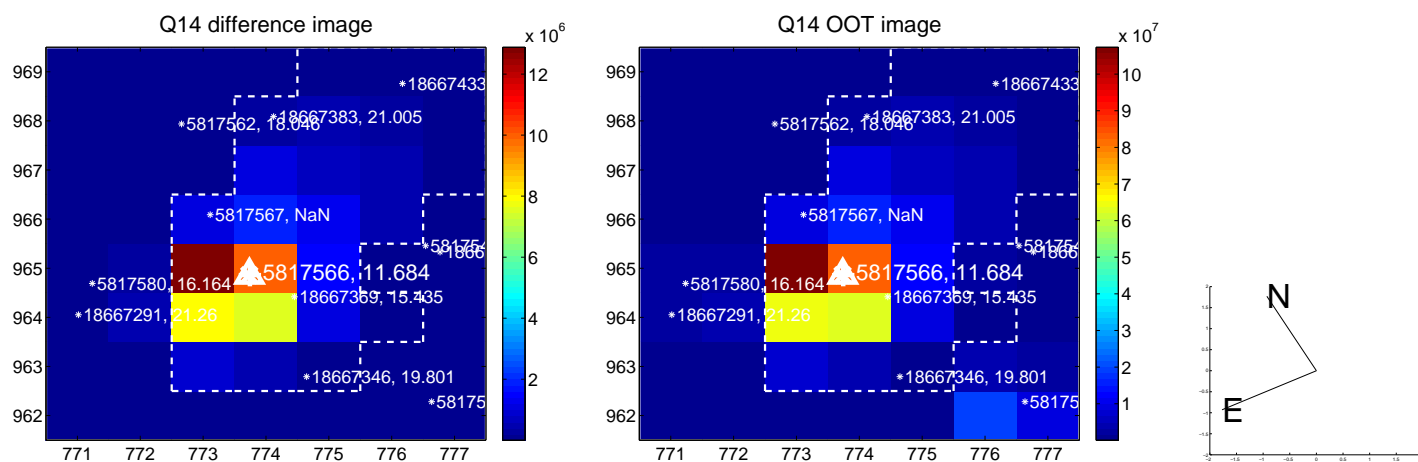
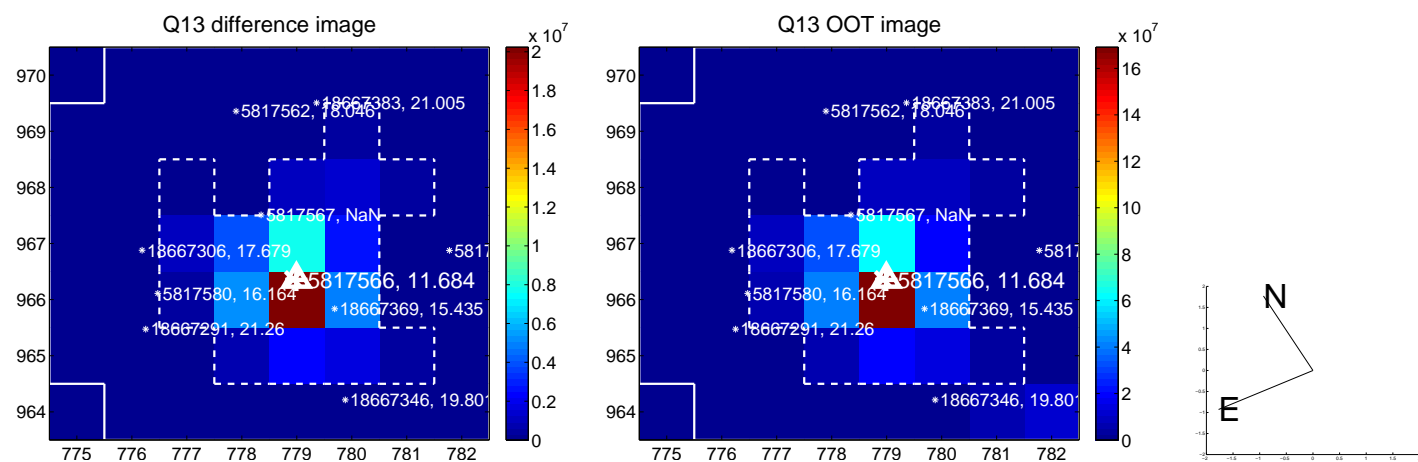
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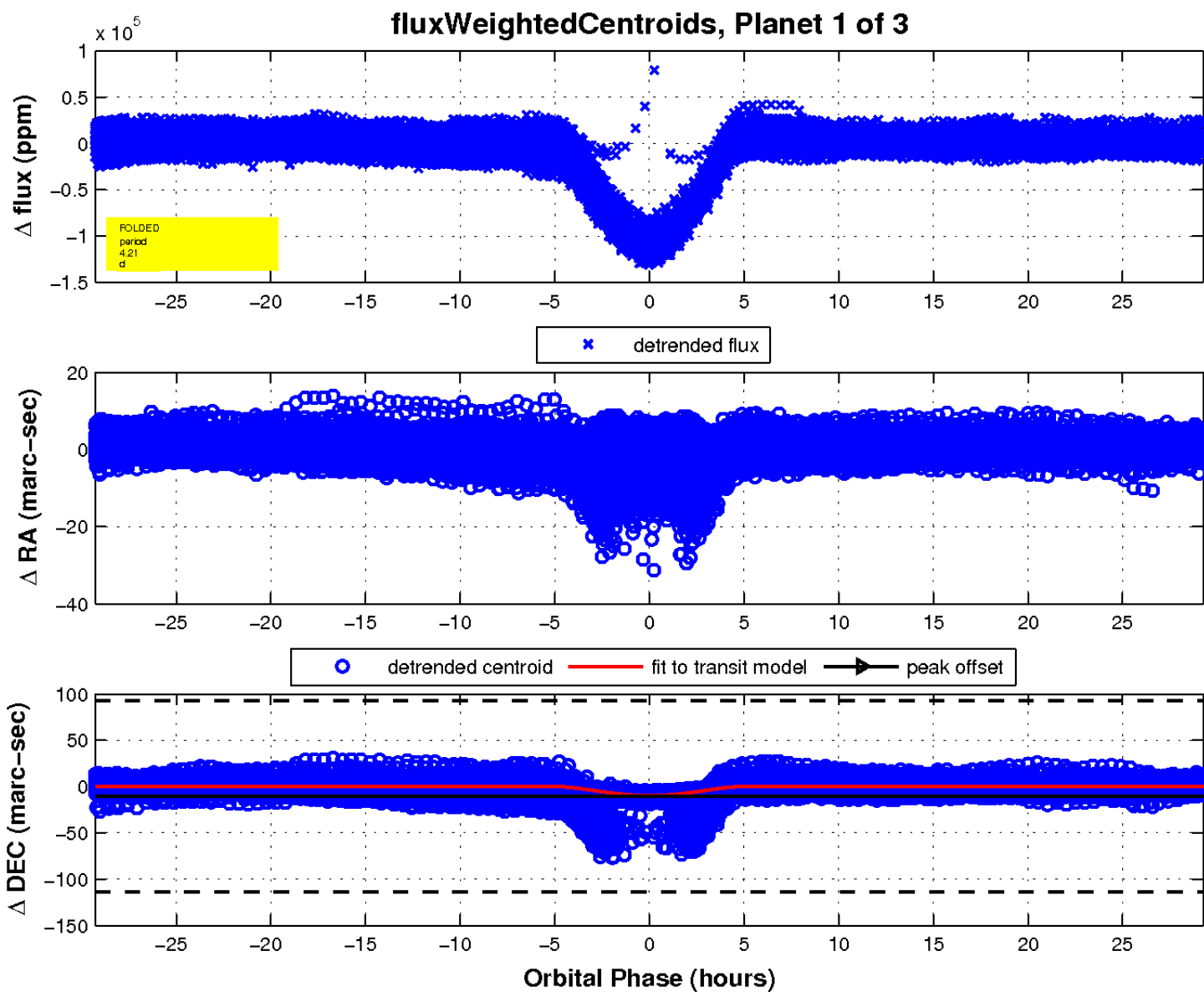
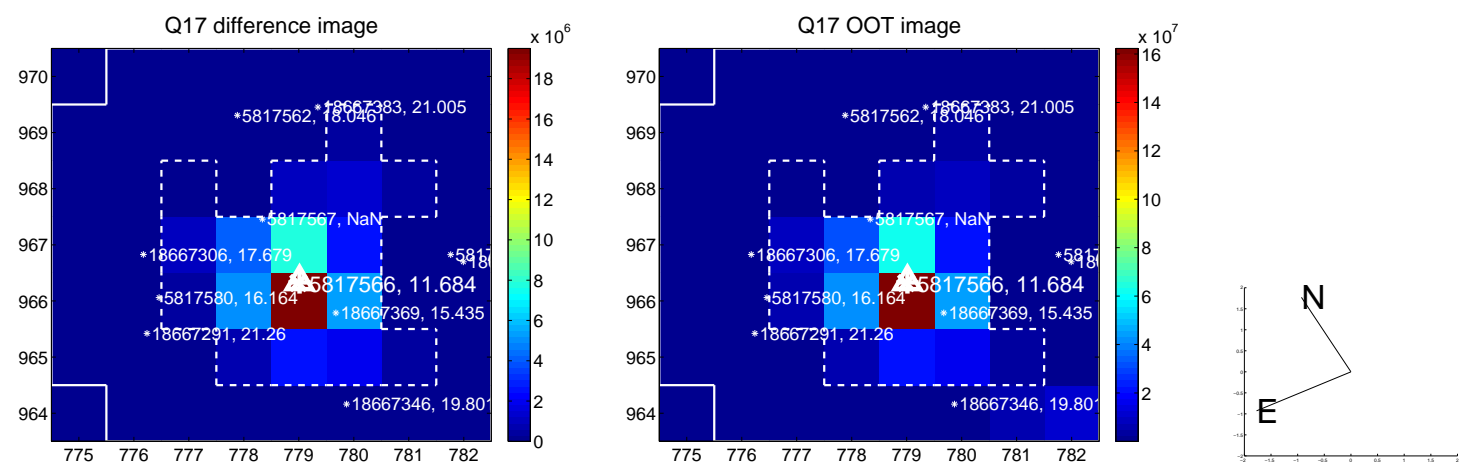
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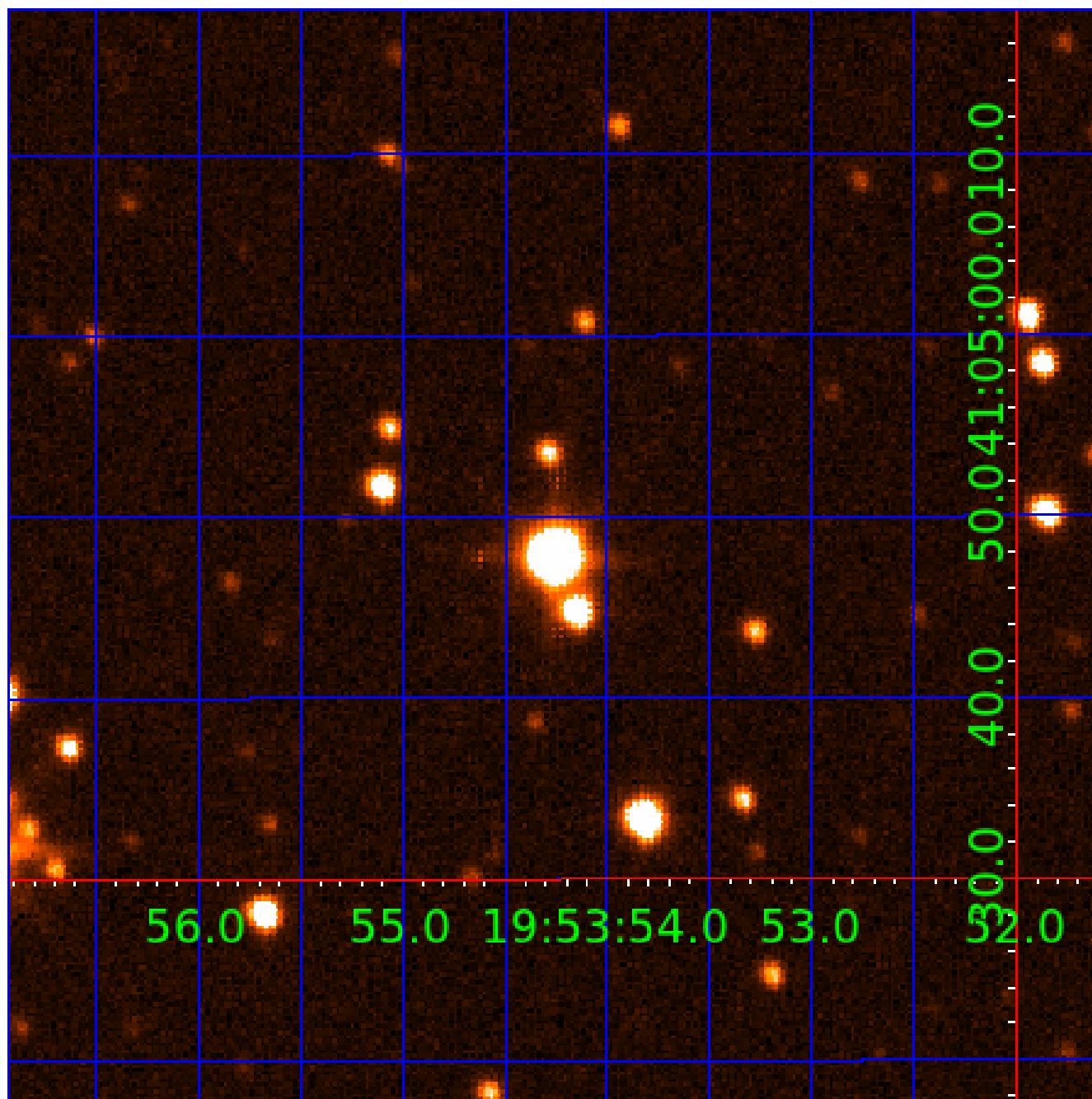


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005817566

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})
005817566-01	OBS	6138.01	4.206076	132.255235	110861.9	9.760	348.5	553.1	3.19	8212	126.68	9960.02
005817566-02	OBS	No	4.206034	134.369148	5645.6	9.171	24.2	42.6	3.19	8212	40.77	9960.15
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005817566-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
005817566-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005817566-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—CENT_NOFITS

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.

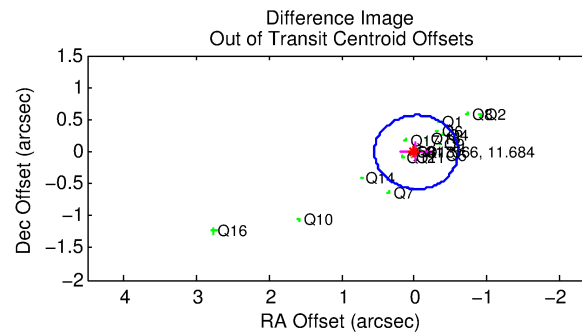
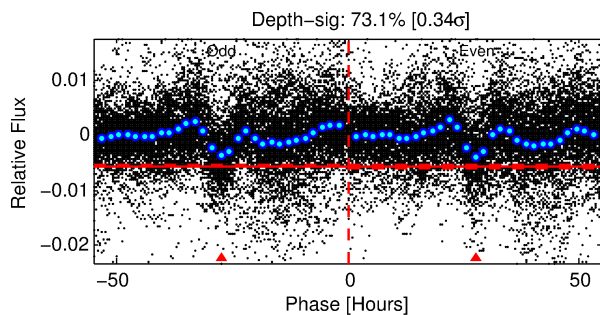
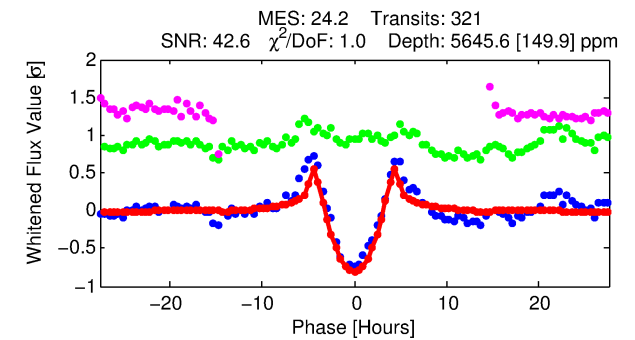
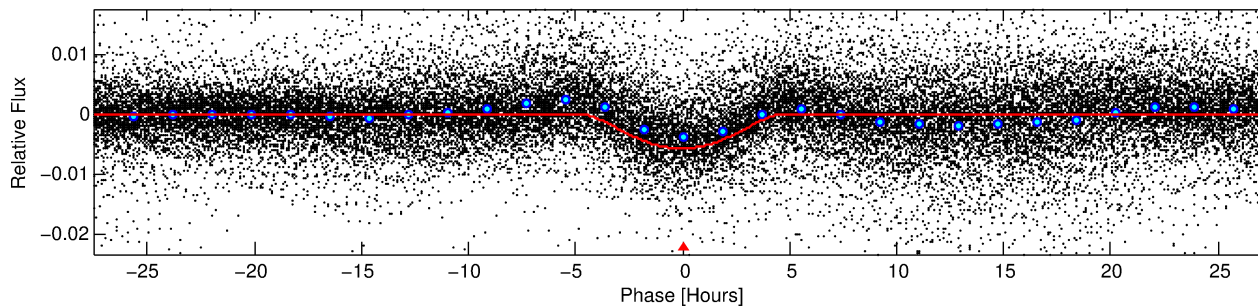
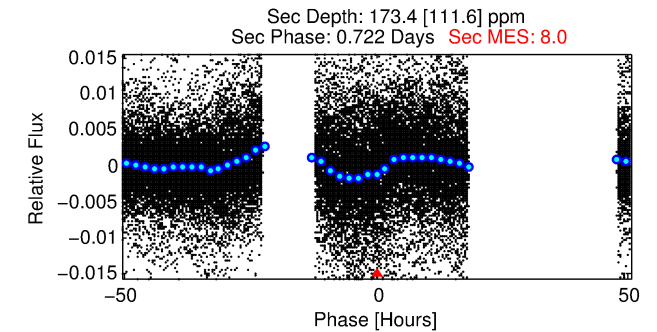
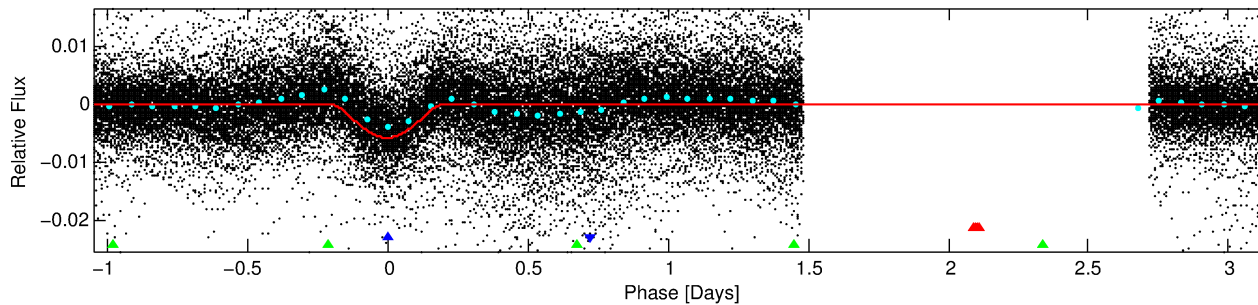
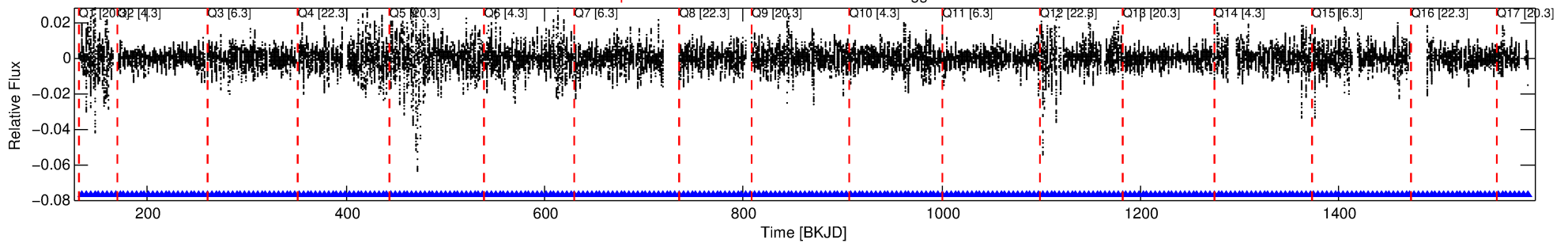
Ephemeris Match Information For 005817566-02

No Significant Match Found

DV One-Page Summary

KIC: 5817566 Candidate: 2 of 3 Period: 4.206 d
KOI: K06138 Corr: No Ephemeris Match

Kp: 11.68 R*: 3.19 Rs Teff: 8212.0 K Logg: 3.74 Fe/H: -0.180



DV Fit Results:

Period = 4.20603 [0.00001] d
Epoch = 134.3691 [0.0024] BKJD
Rp/R* = 0.1173 [0.0282]
a/R* = 2.07 [0.05]
b = 0.99 [0.04]
Seff = 9960.15 [7464.84]
Teq = 2547 [477] K
Rp = 40.78 [21.17] Re
a = 0.0644 [0.0291] AU
Ag = 0.24 [0.26] [-2.95σ]
Teffp = 2751 [565] K [0.28σ]

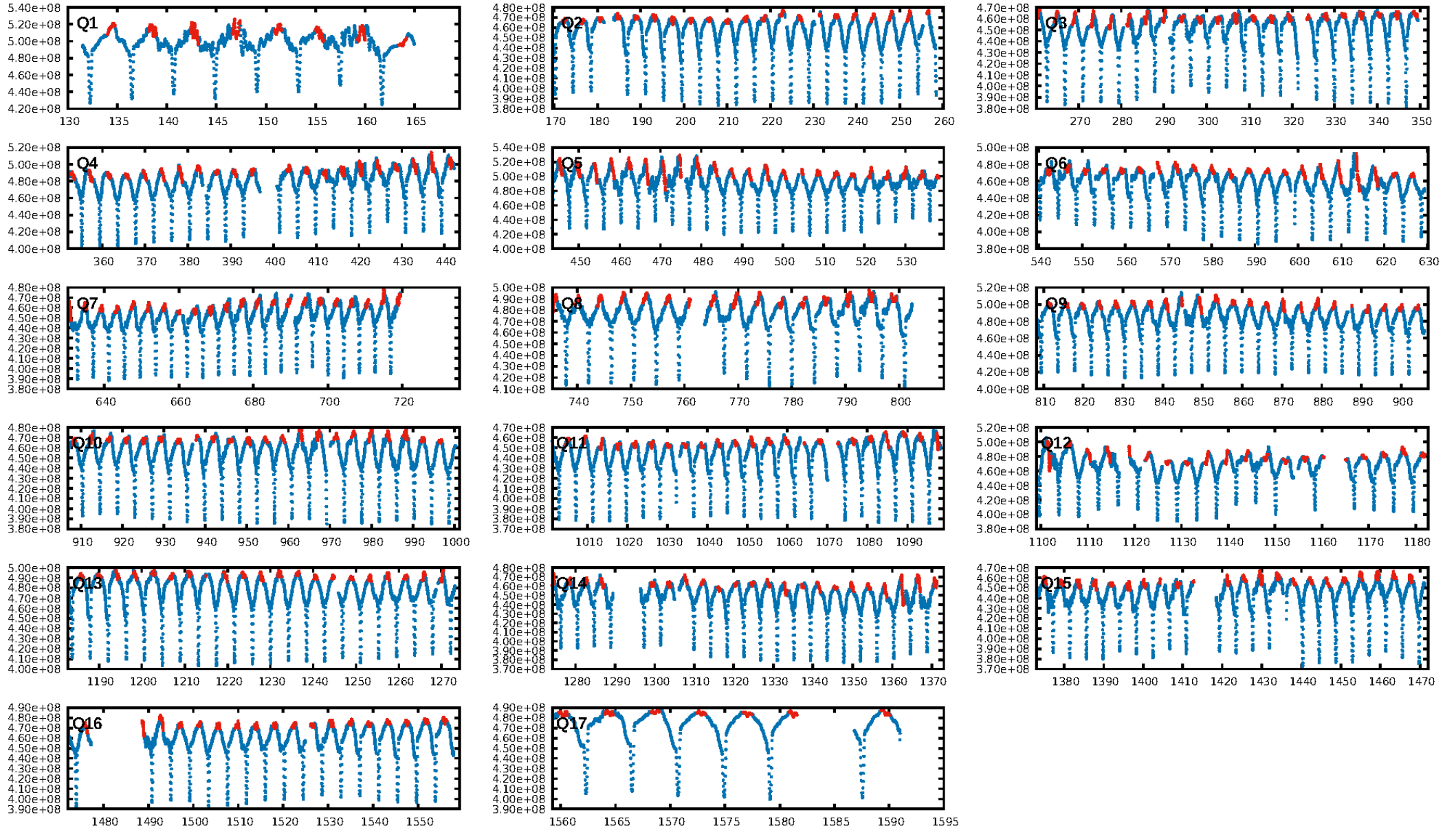
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [306/306]
GhostDiagnostic-chr: 1.522
Centroid-sig: N/A
Centroid-so: 0.354 arcsec [19.93σ]
OotOffset-rm: 0.030 arcsec [0.15σ]
KicOffset-rm: 0.080 arcsec [0.37σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 1.00 [17/17]

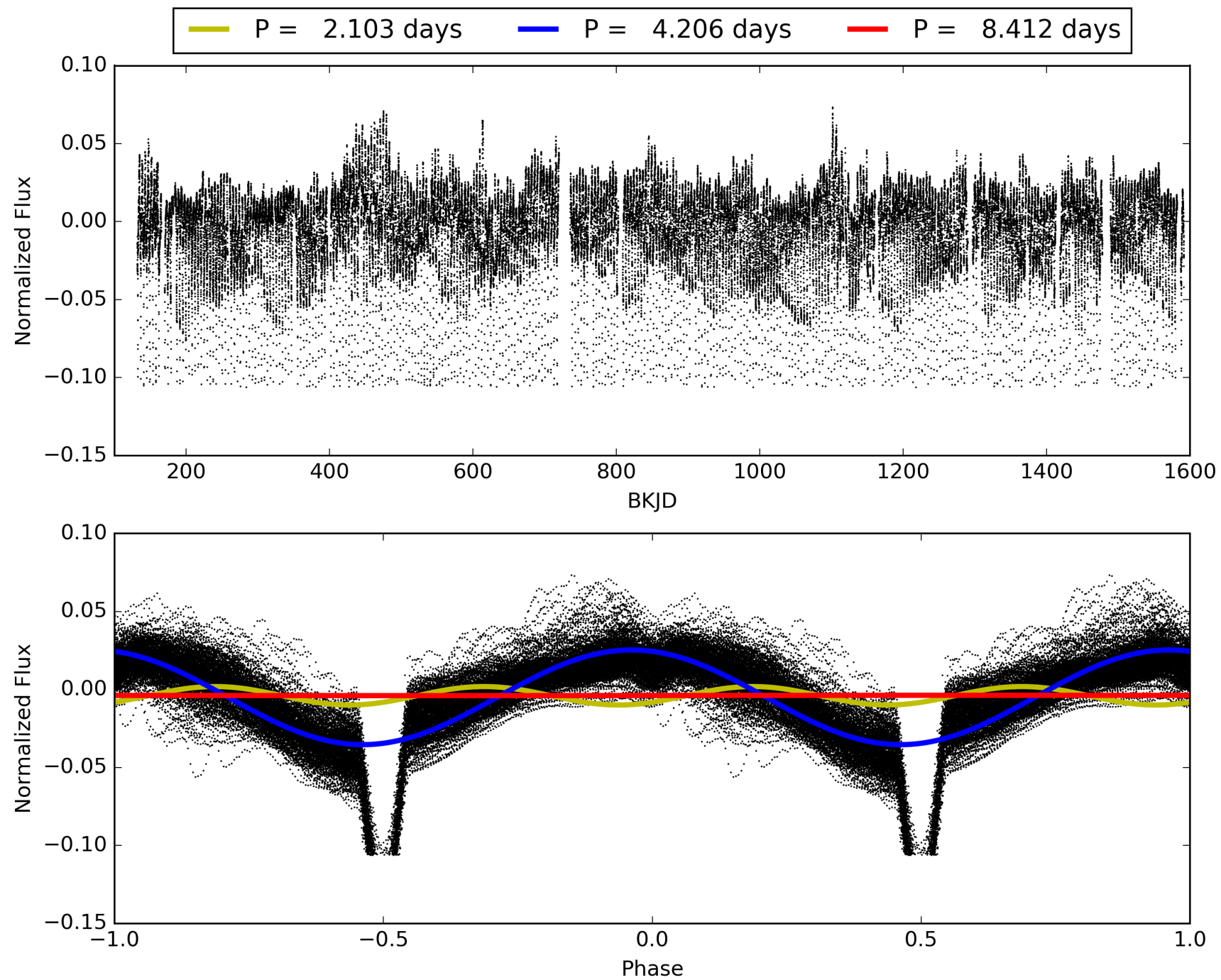
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:43:51 Z

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

TCE 005817566-02, PDC Light Curves

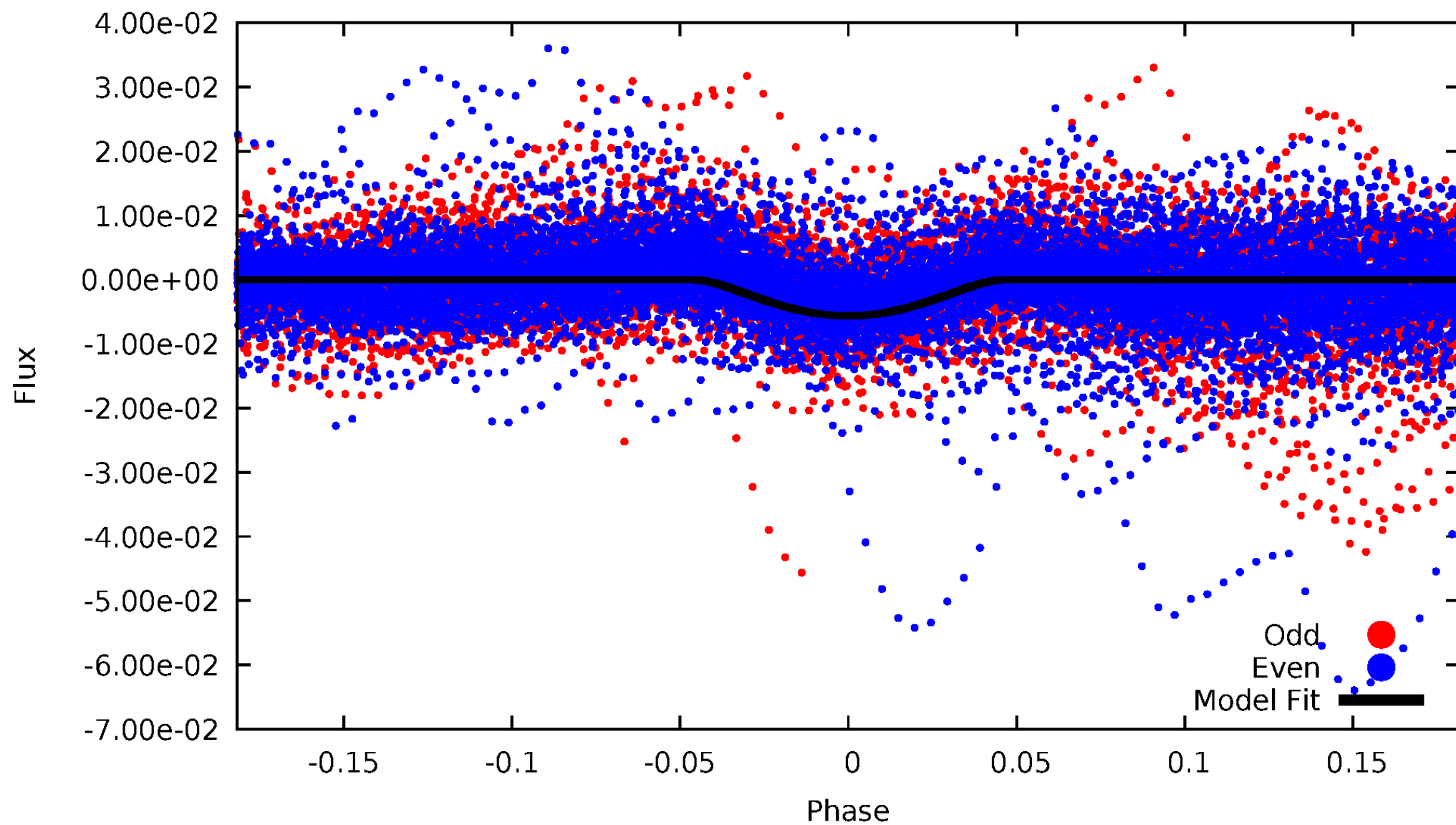


TCE 005817566-02



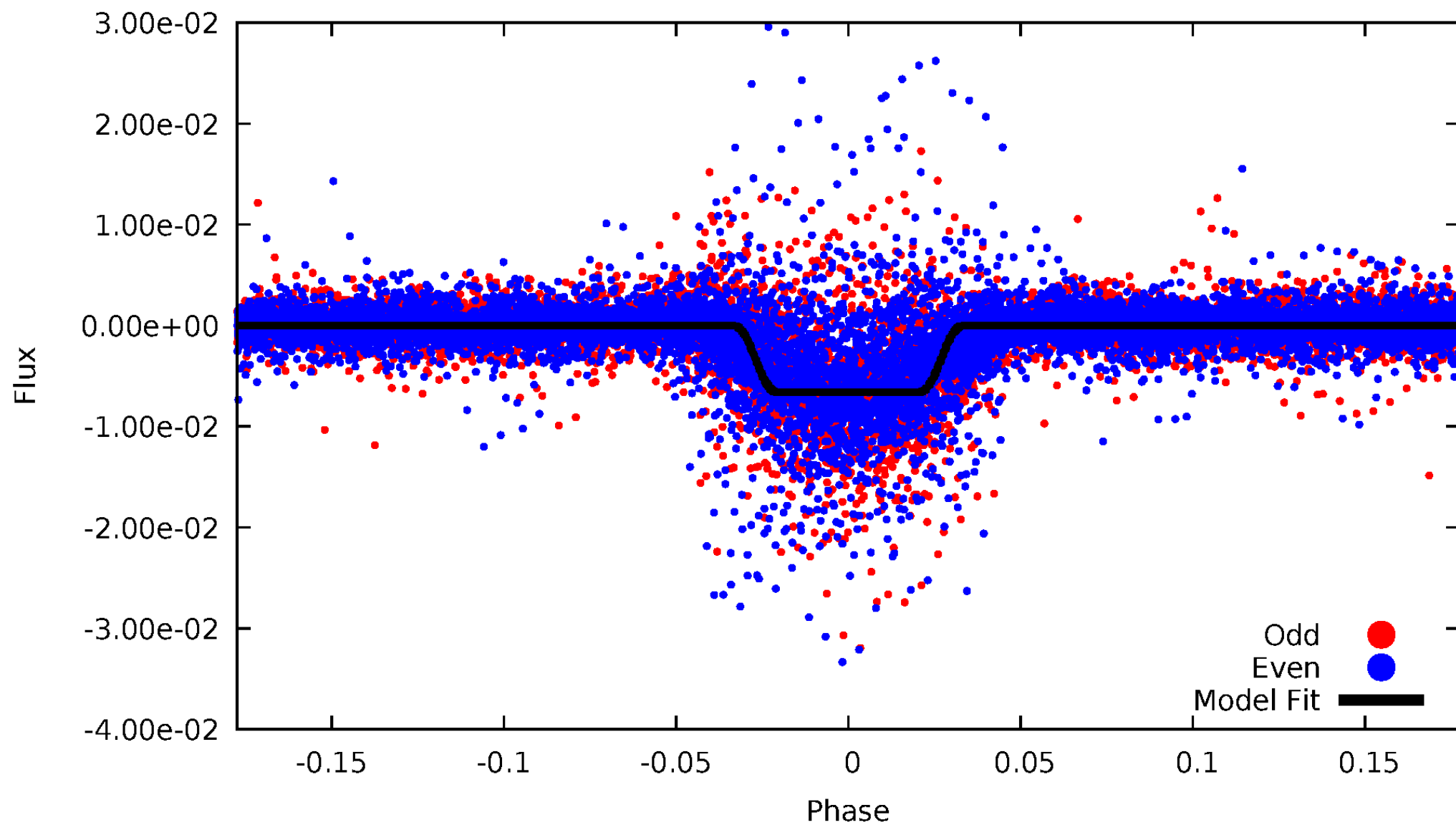
DV Odd/Even

TCE 005817566-02



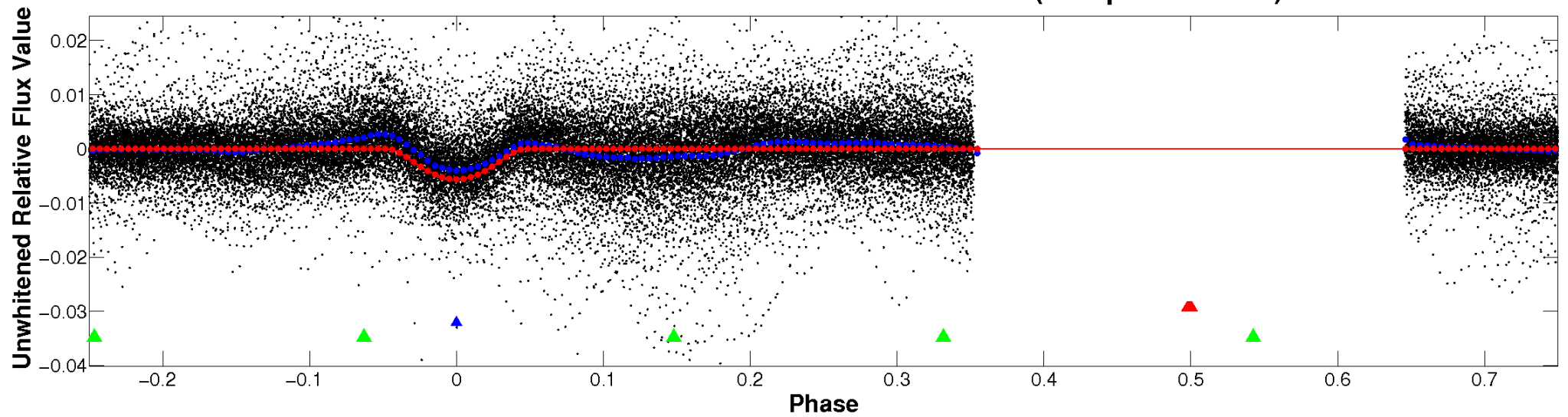
ALT Odd/Even

TCE 005817566-02

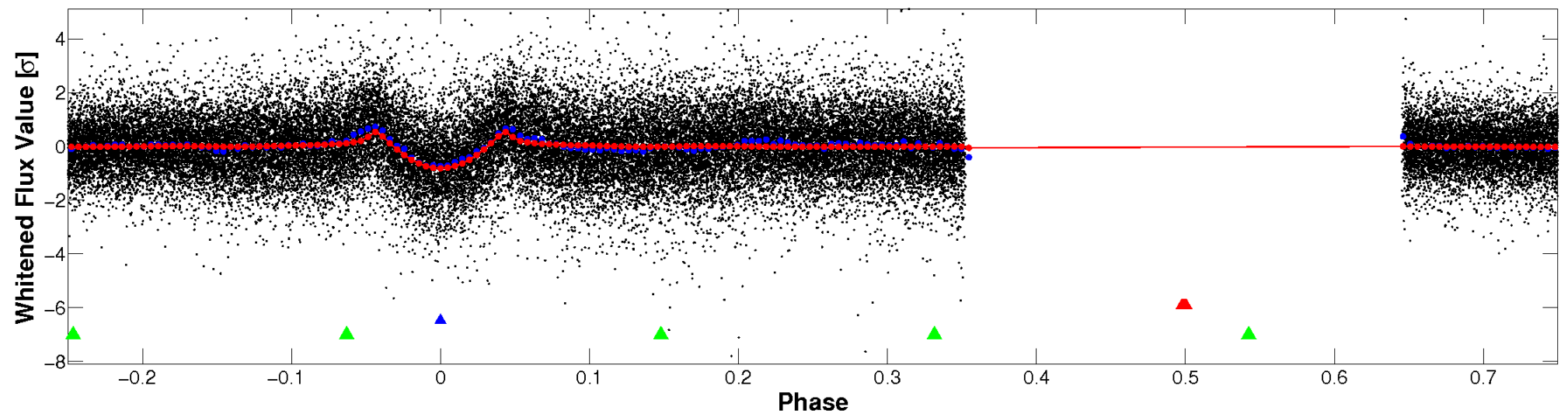


Non-Whitened Vs. Whitened Light Curve

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

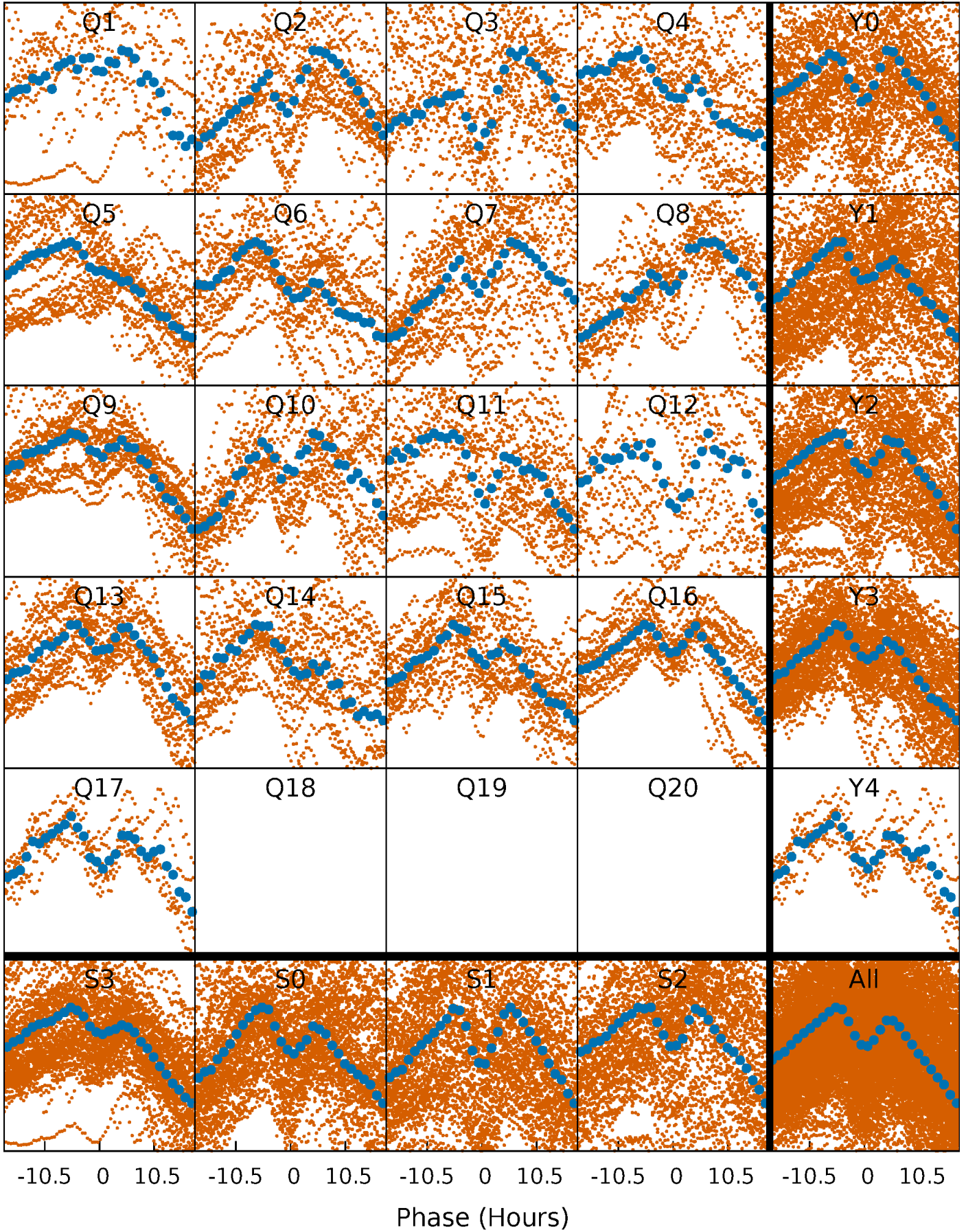


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



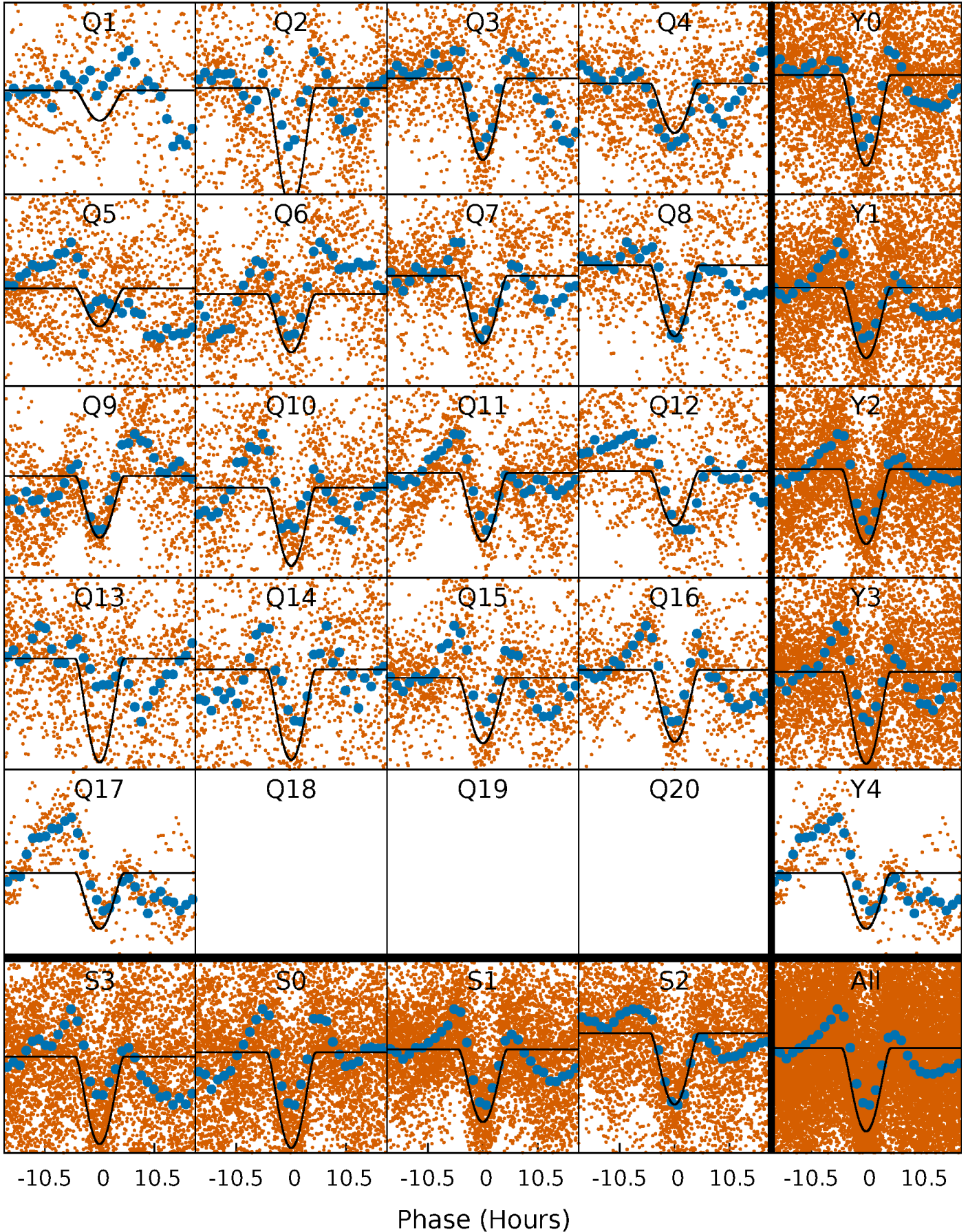
PDC Quarter-Phased Transit Curves

TCE 005817566-02 P= 4.206034 Days $T_0=134.369147$ (BKJD)



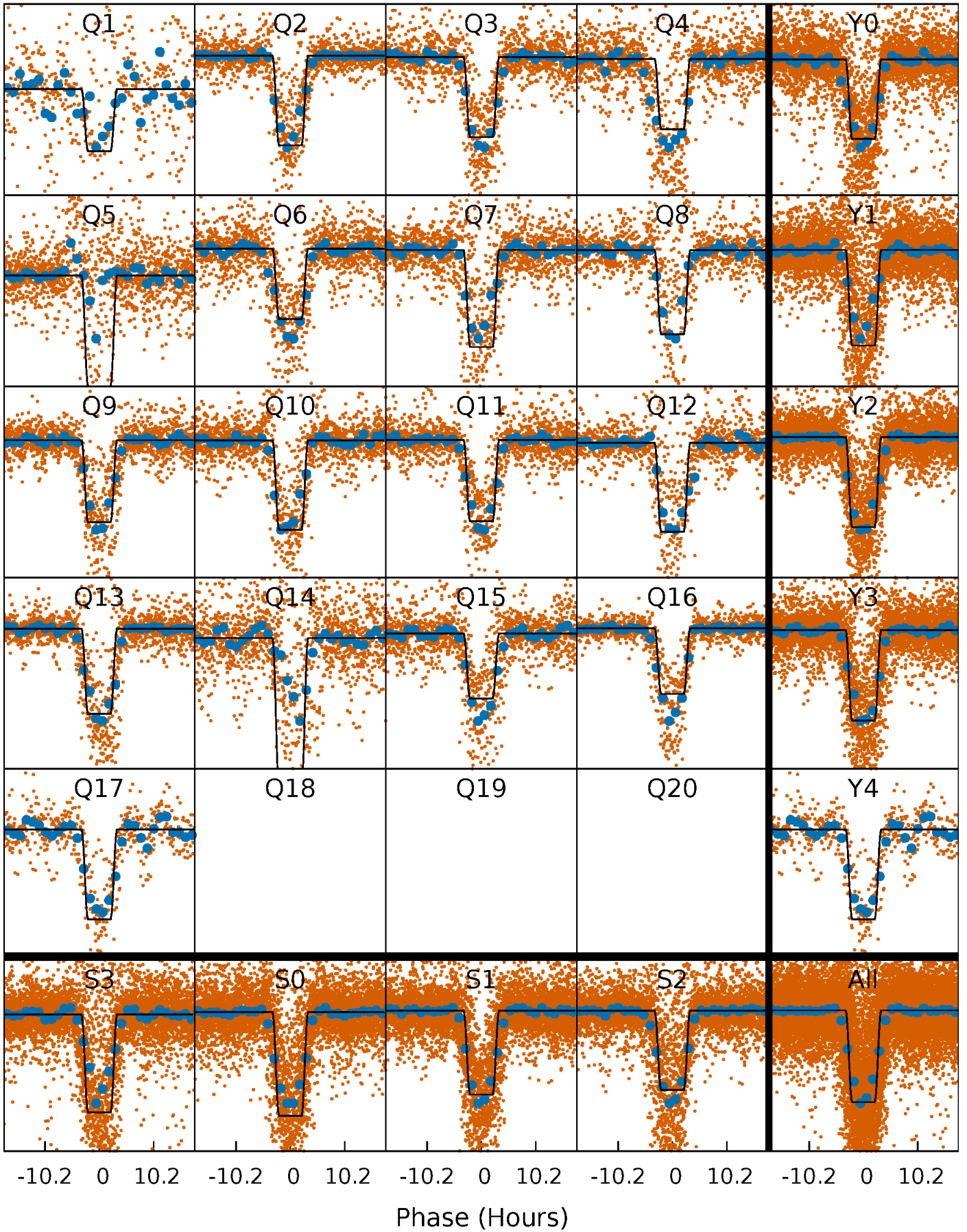
DV Quarter-Phased Transit Curves

TCE 005817566-02 P= 4.206034 Days $T_0=134.369147$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

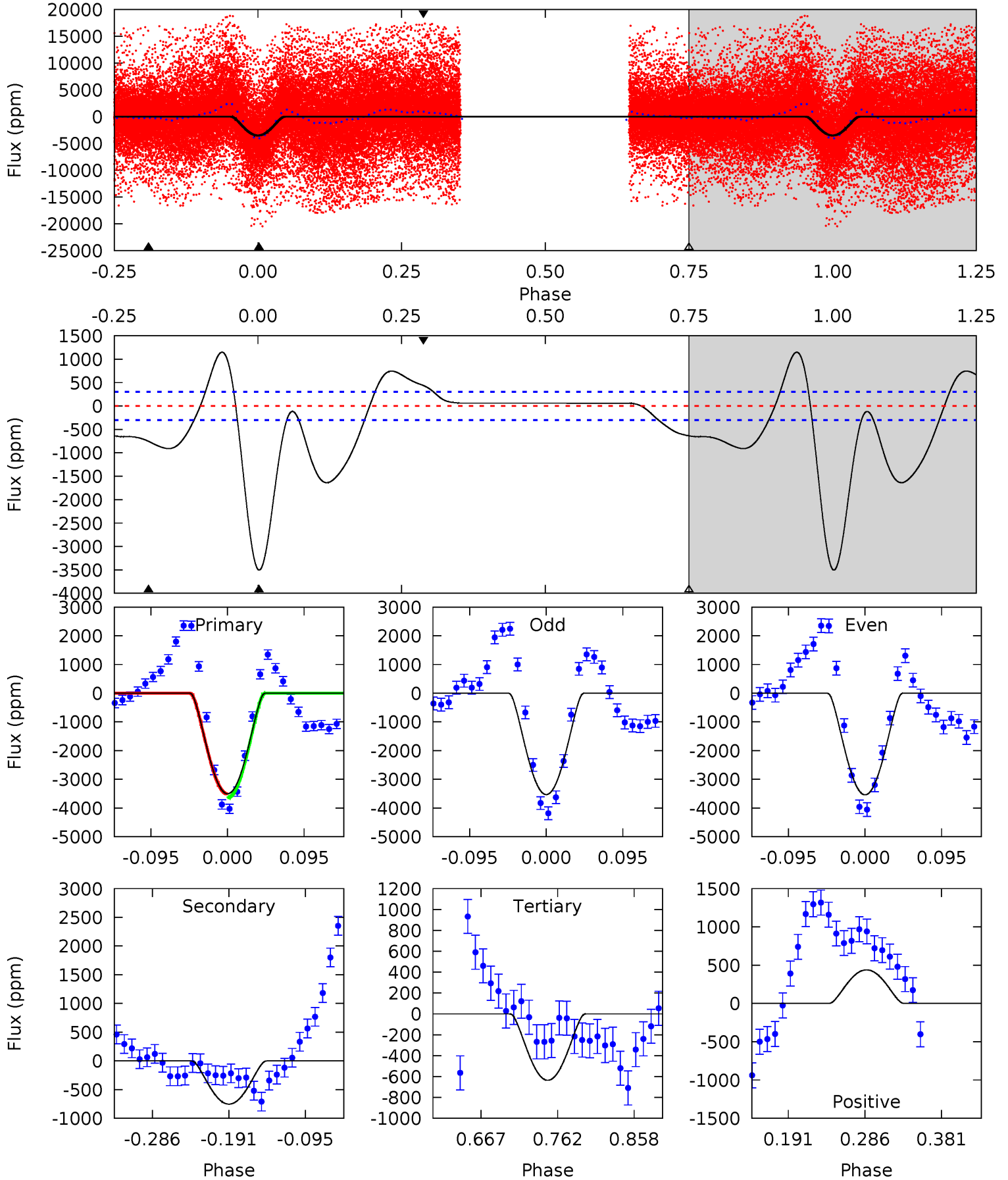
TCE 005817566-02 P= 4.206033 Days $T_0=134.368755$ (BKJD)



DV Model-Shift Uniqueness Test

005817566-02, P = 4.206034 Days, E = 130.163113 Days

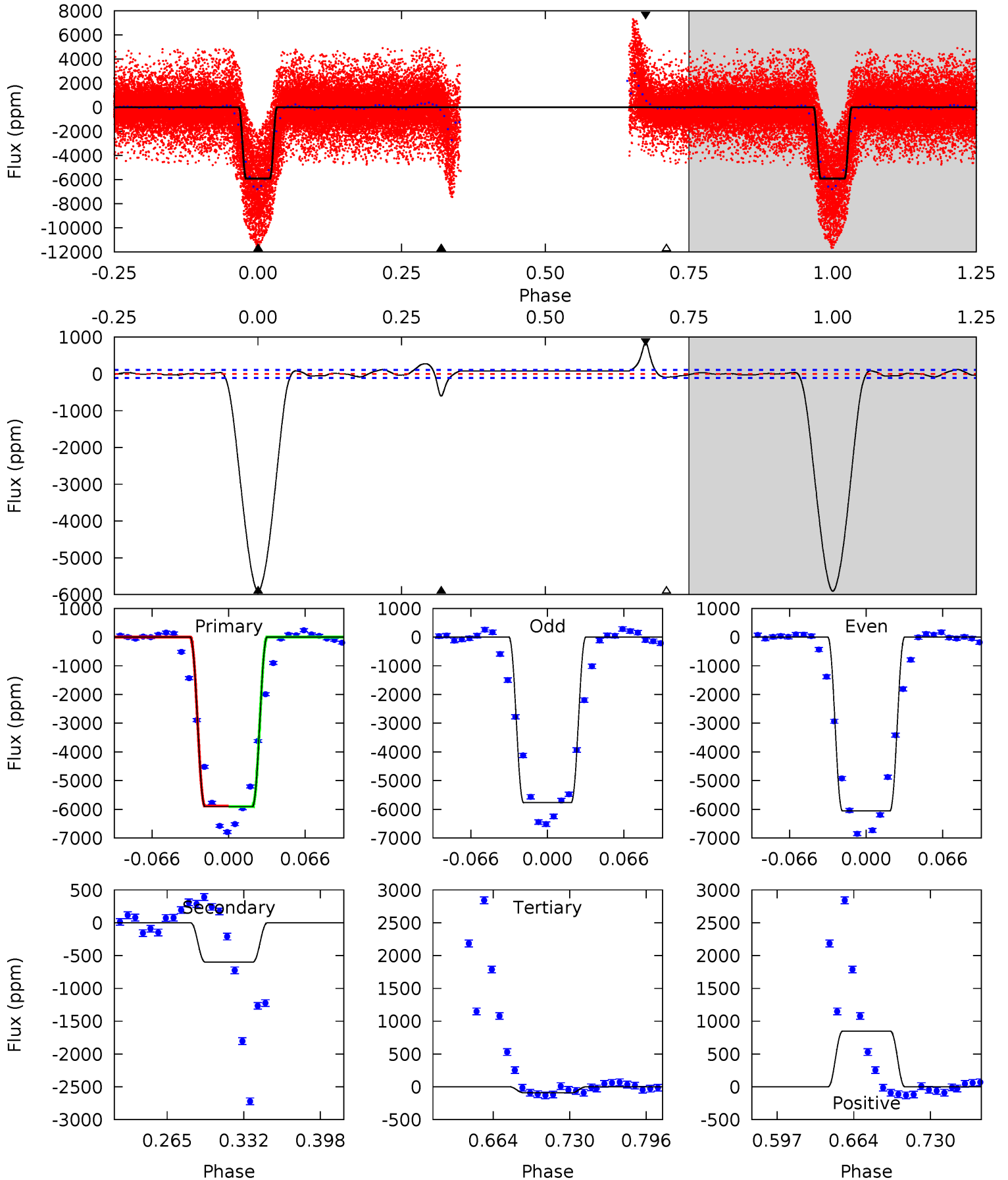
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.0	11.4	9.62	6.63	4.57	1.67	10.8	43.4	46.4	1.78	4.77	0.06	0.88	0.25	1.02



Alt Model-Shift Uniqueness Test

005817566-02, P = 4.206033 Days, E = 130.162722 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
252.7	25.7	3.93	36.3	4.65	1.84	6.27	248.8	216.4	21.8	-10.7	6.09	1.03	0.13	0.49



Stellar Parameters For KIC 005817566

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8212^{+229}_{-343}	$3.736^{+0.432}_{-0.108}$	$-0.180^{+0.200}_{-0.350}$	$3.185^{+0.789}_{-1.465}$	$2.016^{+0.372}_{-0.496}$	$0.088^{+0.340}_{-0.031}$
	+3%/-4%	+12%/-3%	+111%/-194%	+25%/-46%	+18%/-25%	+387%/-35%
Source	KIC0	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 005817566-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-753 ± 66	$37.41^{+12.18}_{-11.71}$	3413^{+292}_{-412}	3904^{+530}_{-424}	$1.248^{+1.334}_{-0.550}$
Alt.	-600 ± 23	$25.31^{+11.66}_{-9.00}$	3437^{+278}_{-448}	4392^{+879}_{-561}	$2.193^{+2.913}_{-1.132}$

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 $A_{\text{obs}} \gg 1.0$

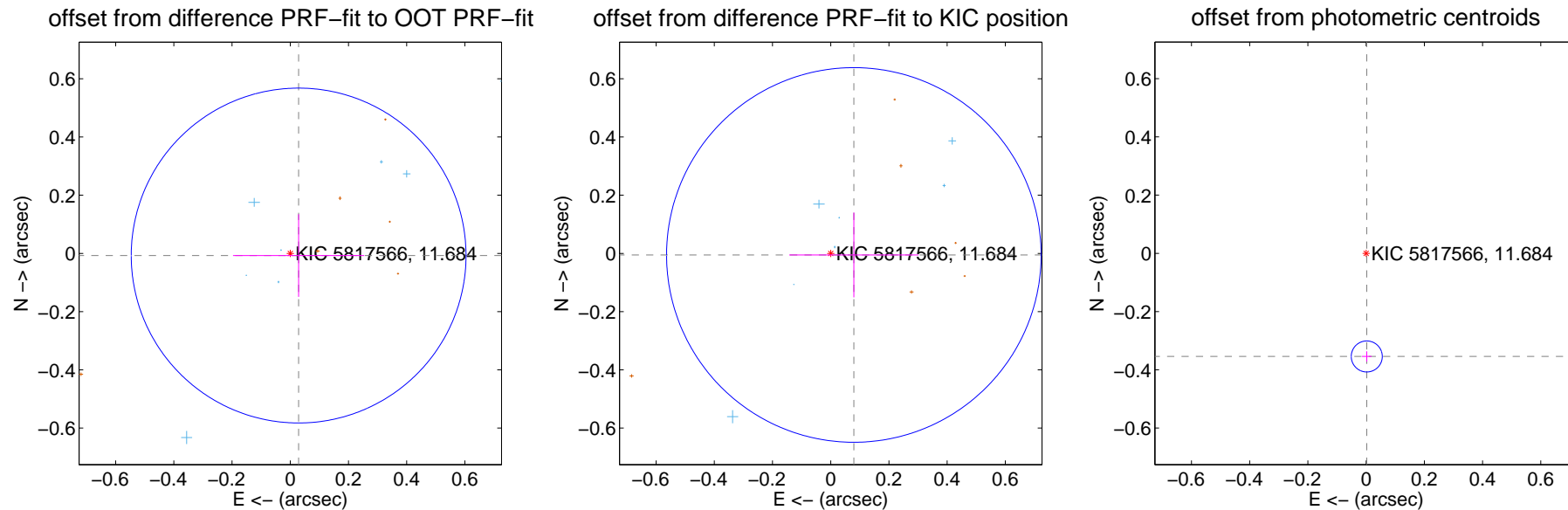
DV Centroid Data

Supplemental centroid analysis for 005817566-02. **Kepler magnitude: 11.68.** Transit SNR 42.62

There are 9 quarters with good PRF difference image offsets

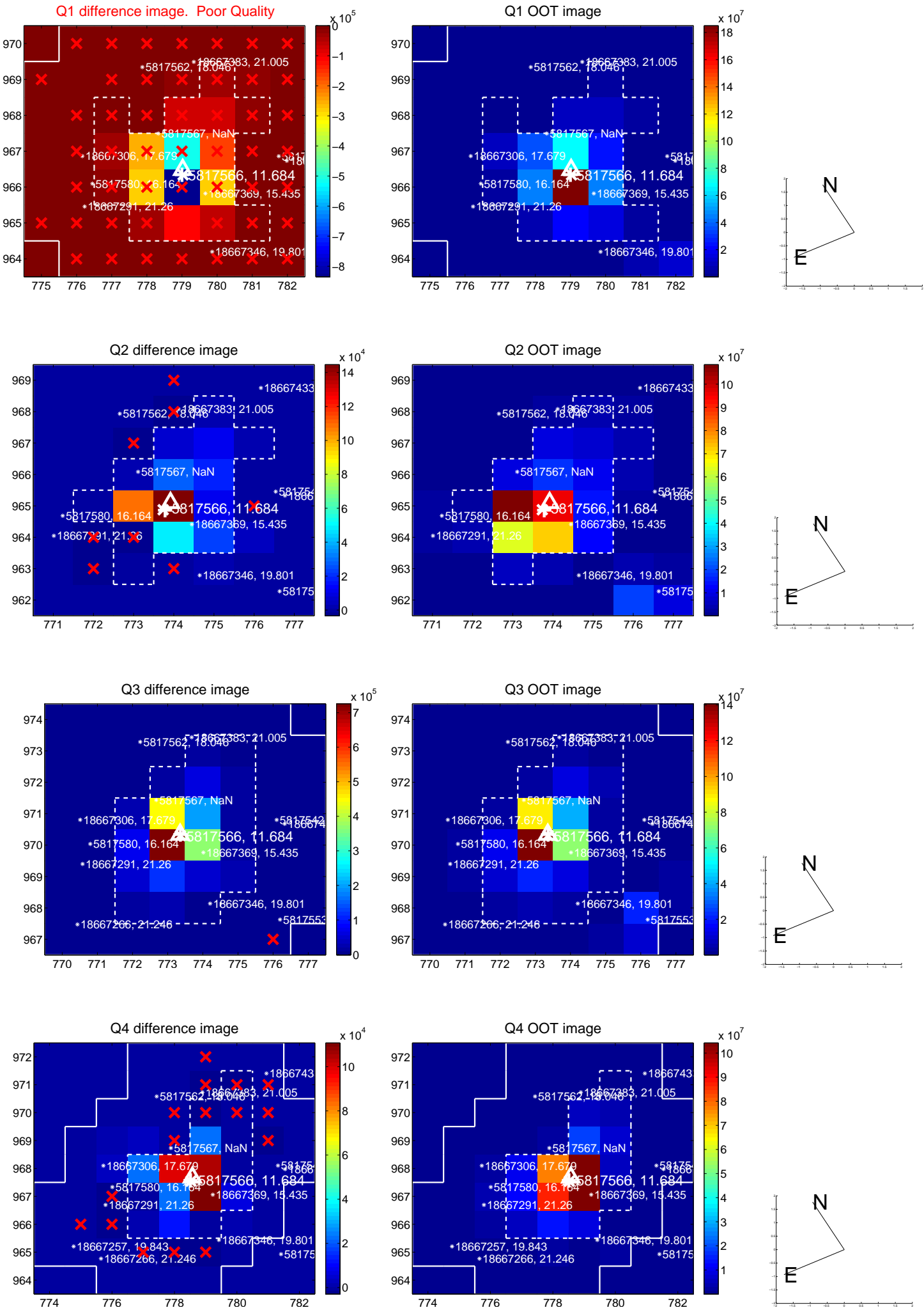
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.030 ± 0.192	0.15	-0.029 ± 0.225	-0.007 ± 0.142
PRF-fit source offset from KIC position	0.080 ± 0.215	0.37	-0.079 ± 0.222	-0.005 ± 0.146
photometric centroid source offset	0.35 ± 0.02	19.93	-0.00 ± 0.02	-0.35 ± 0.02

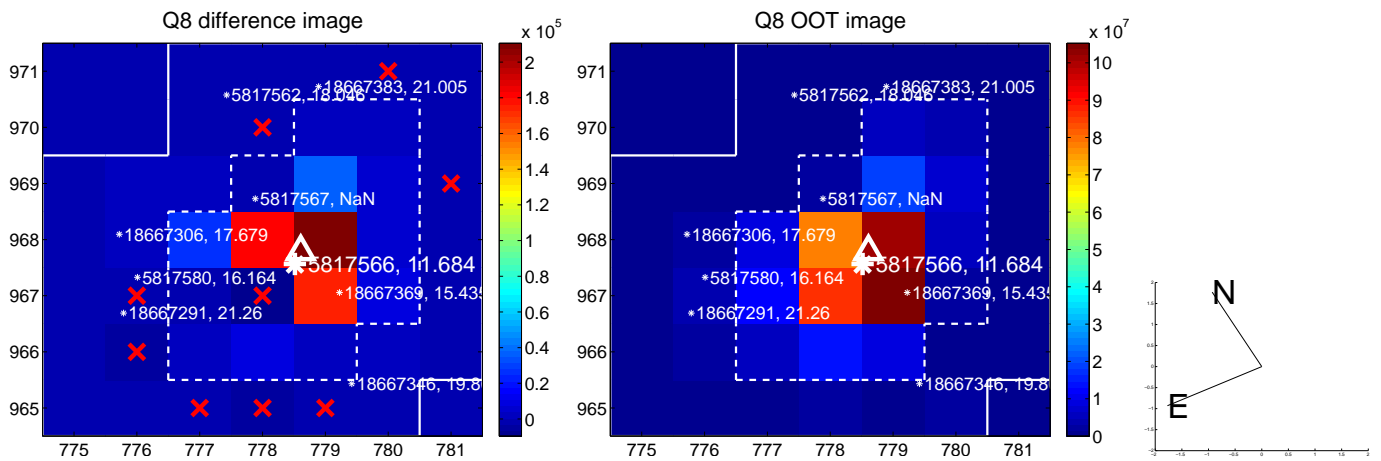
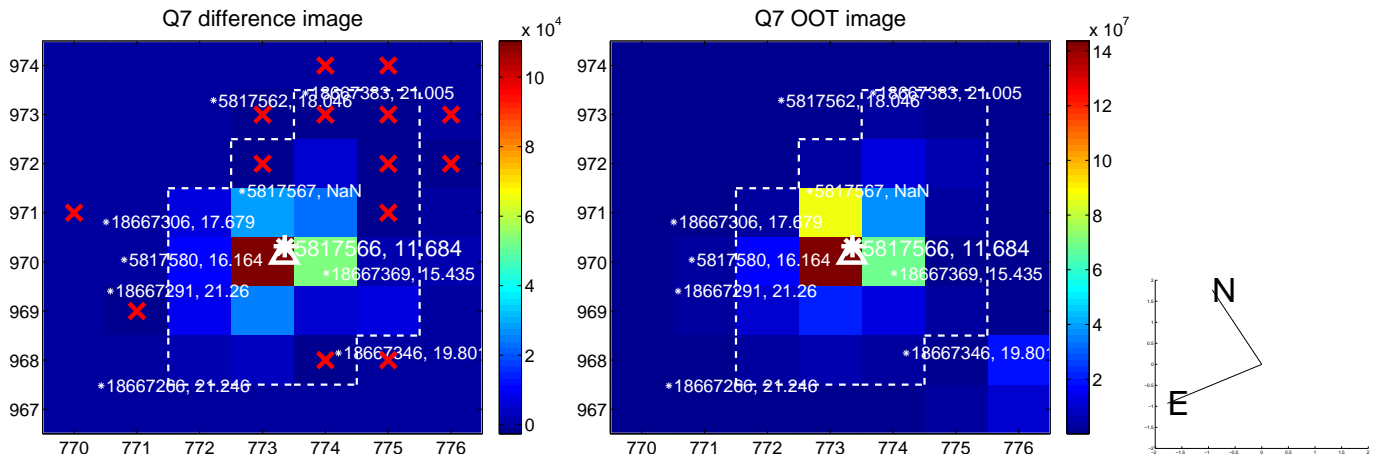
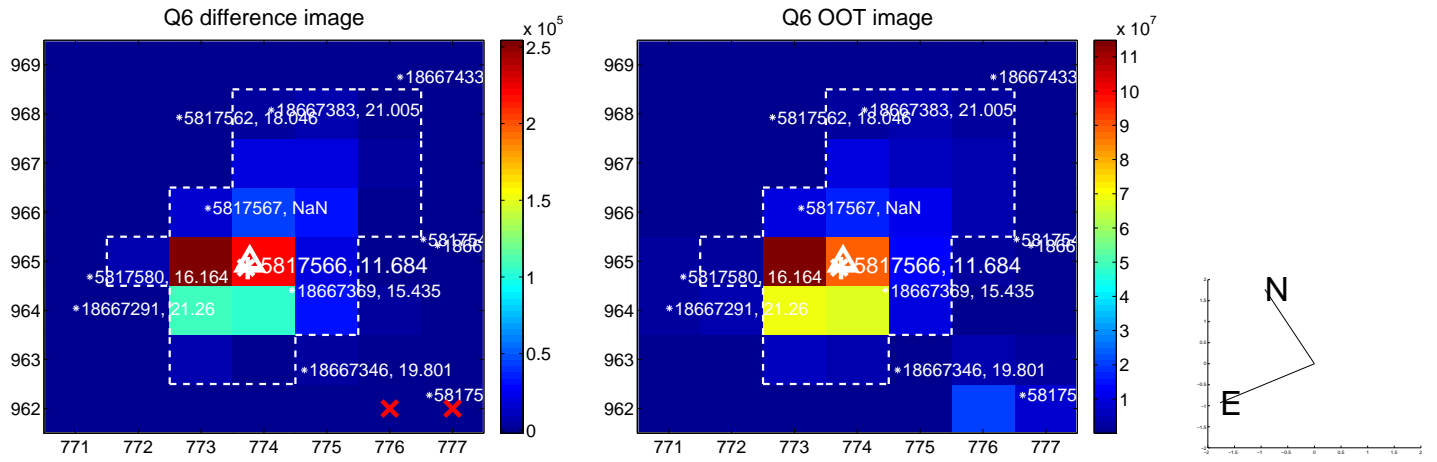
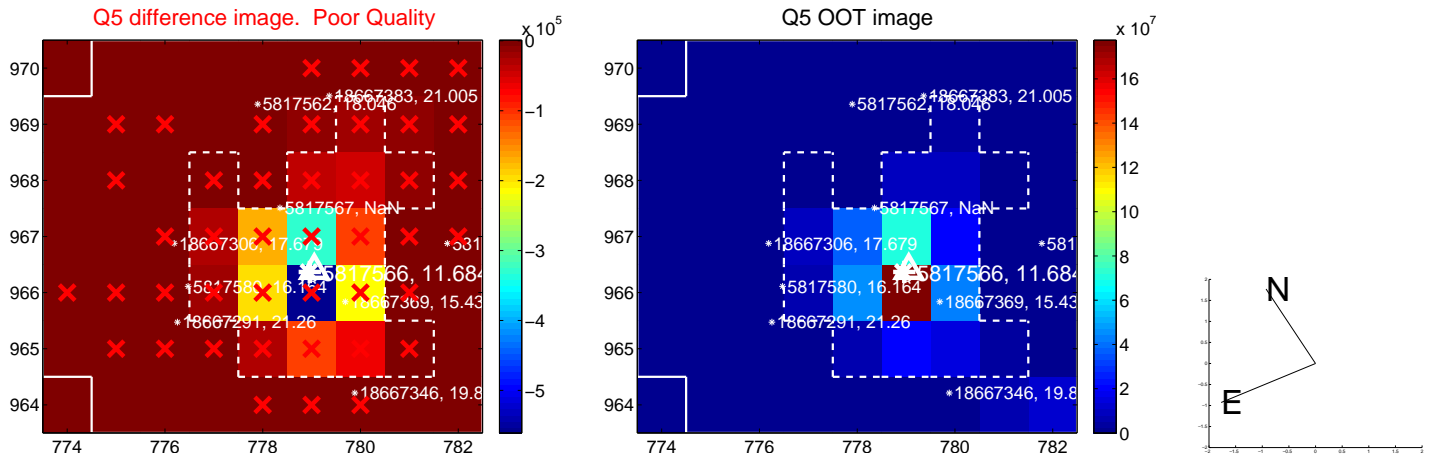


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

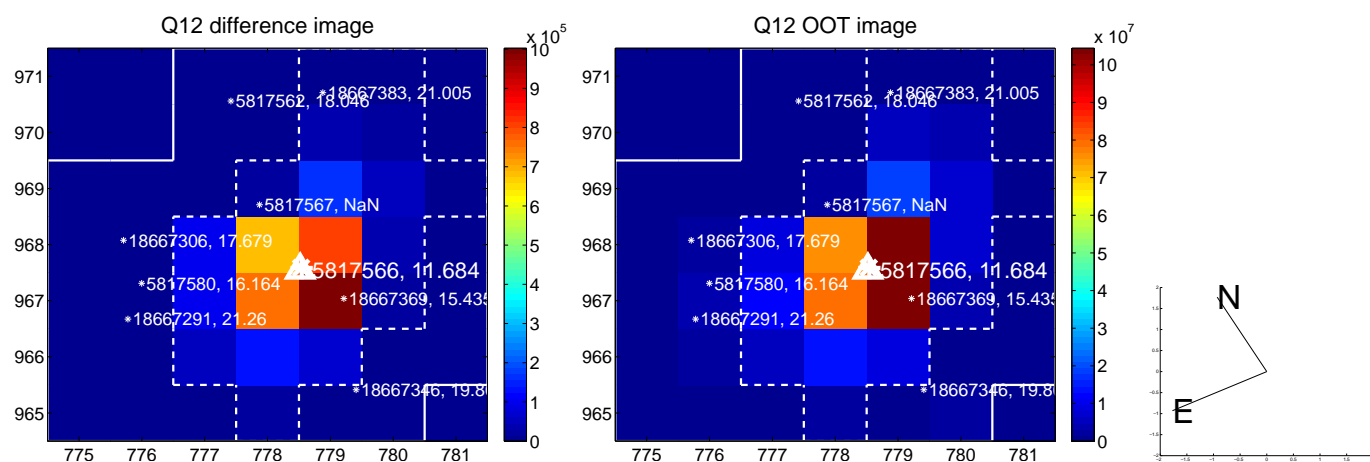
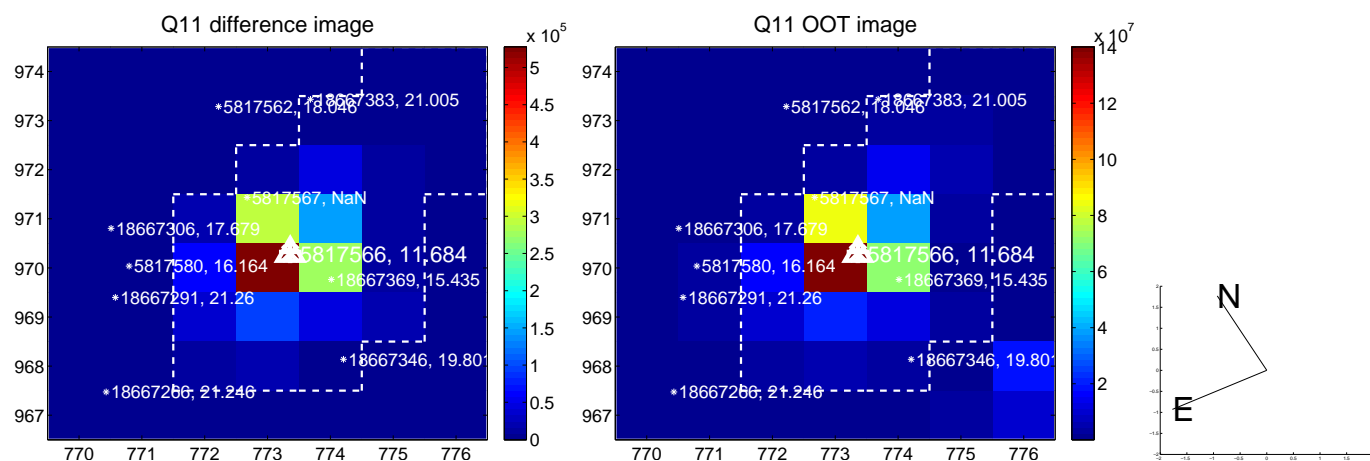
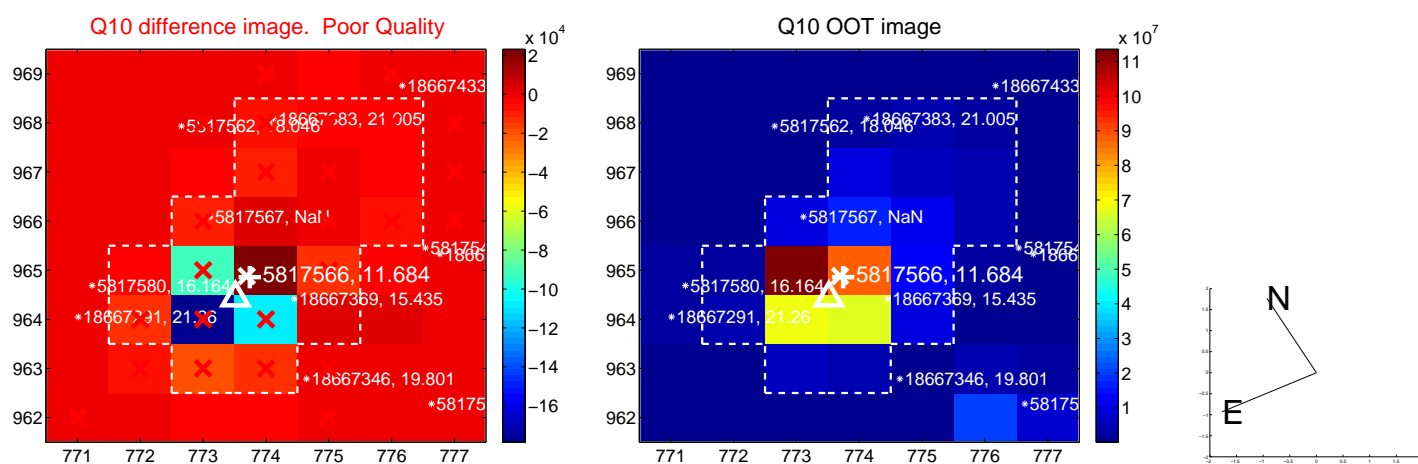
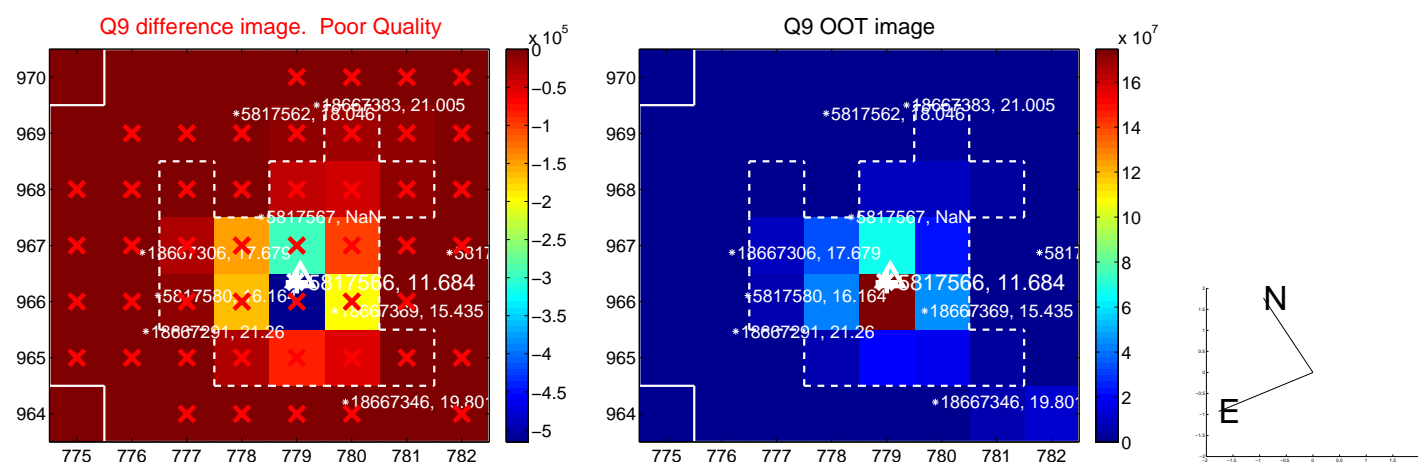
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



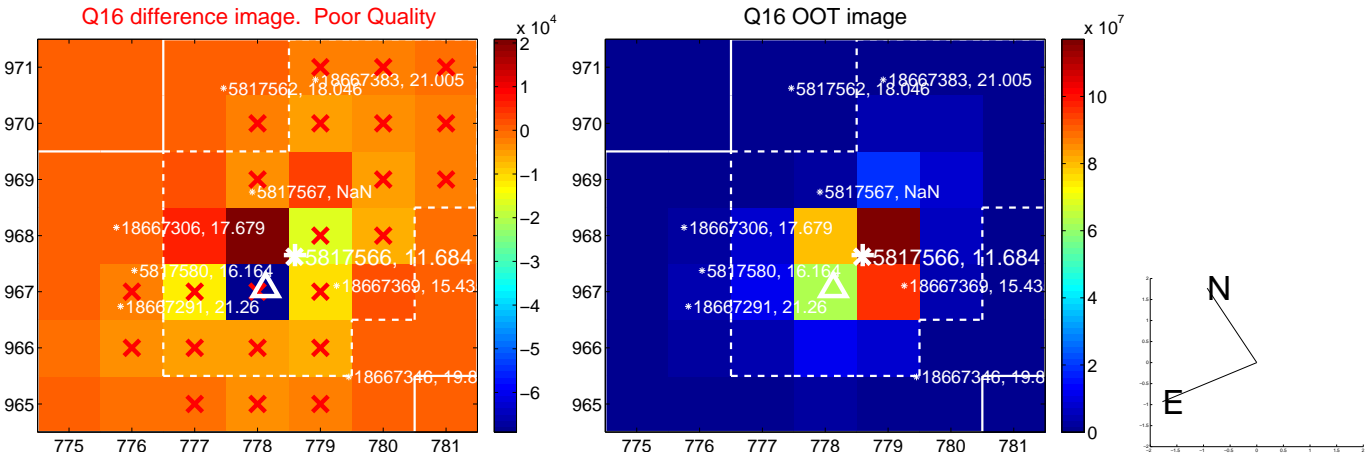
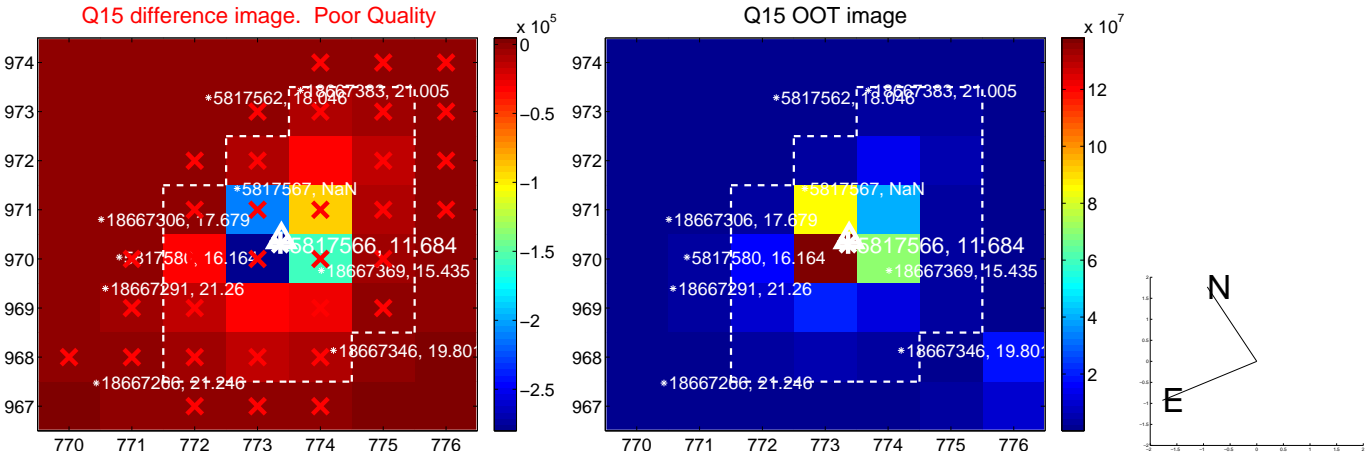
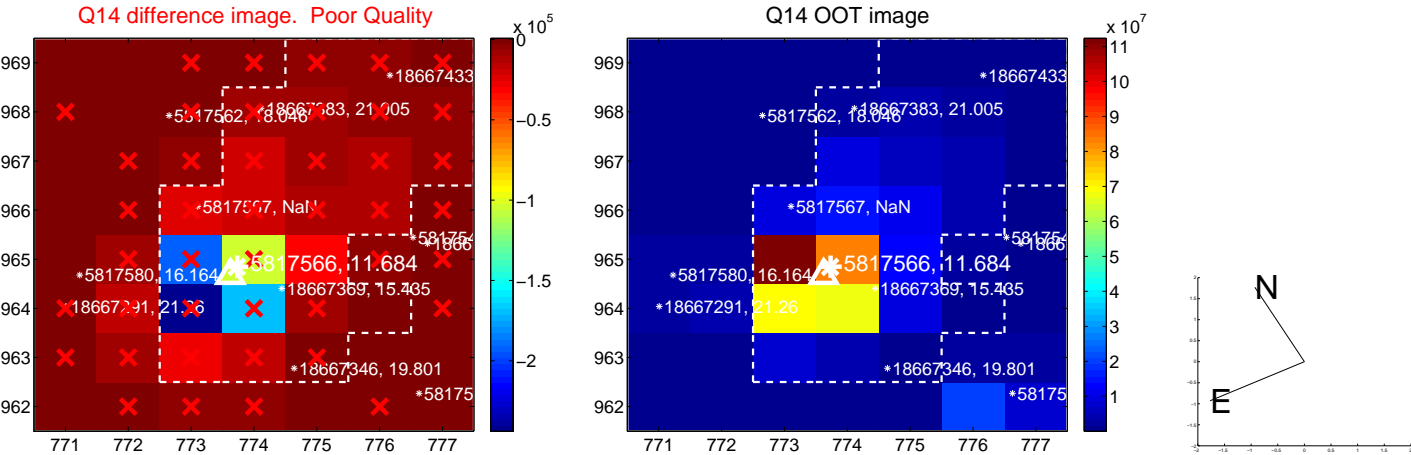
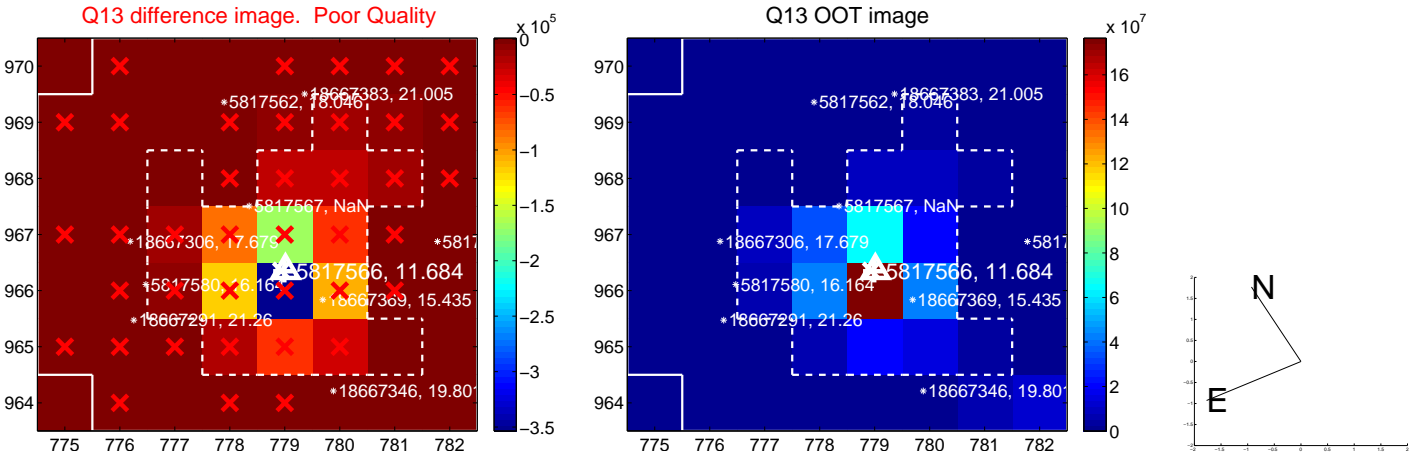
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



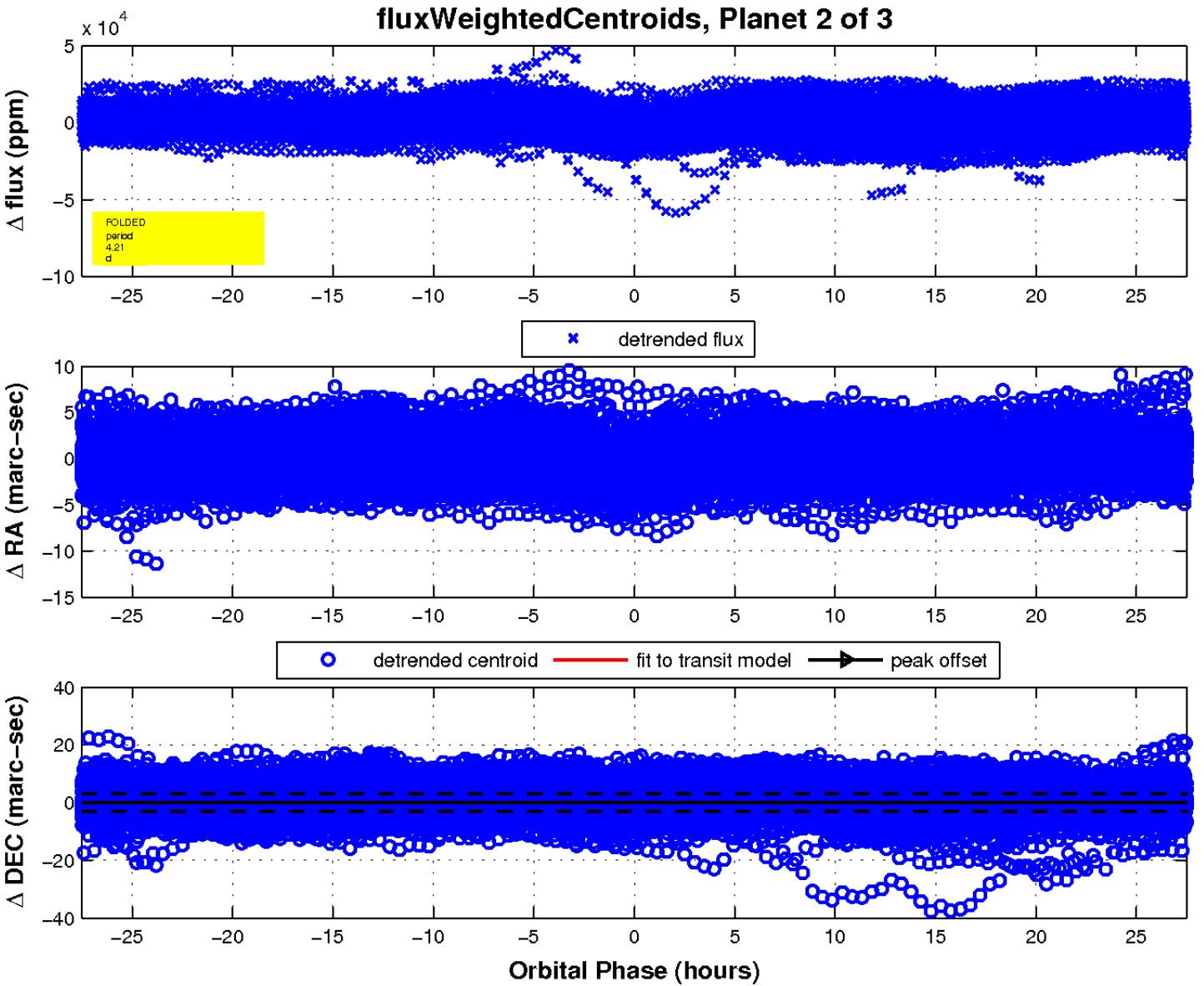
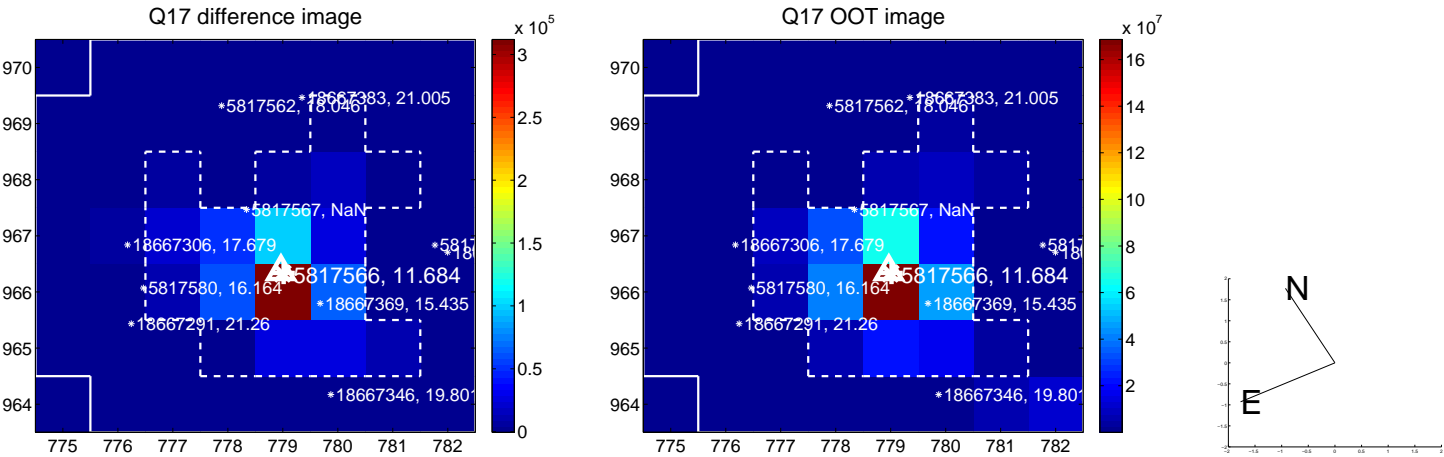
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

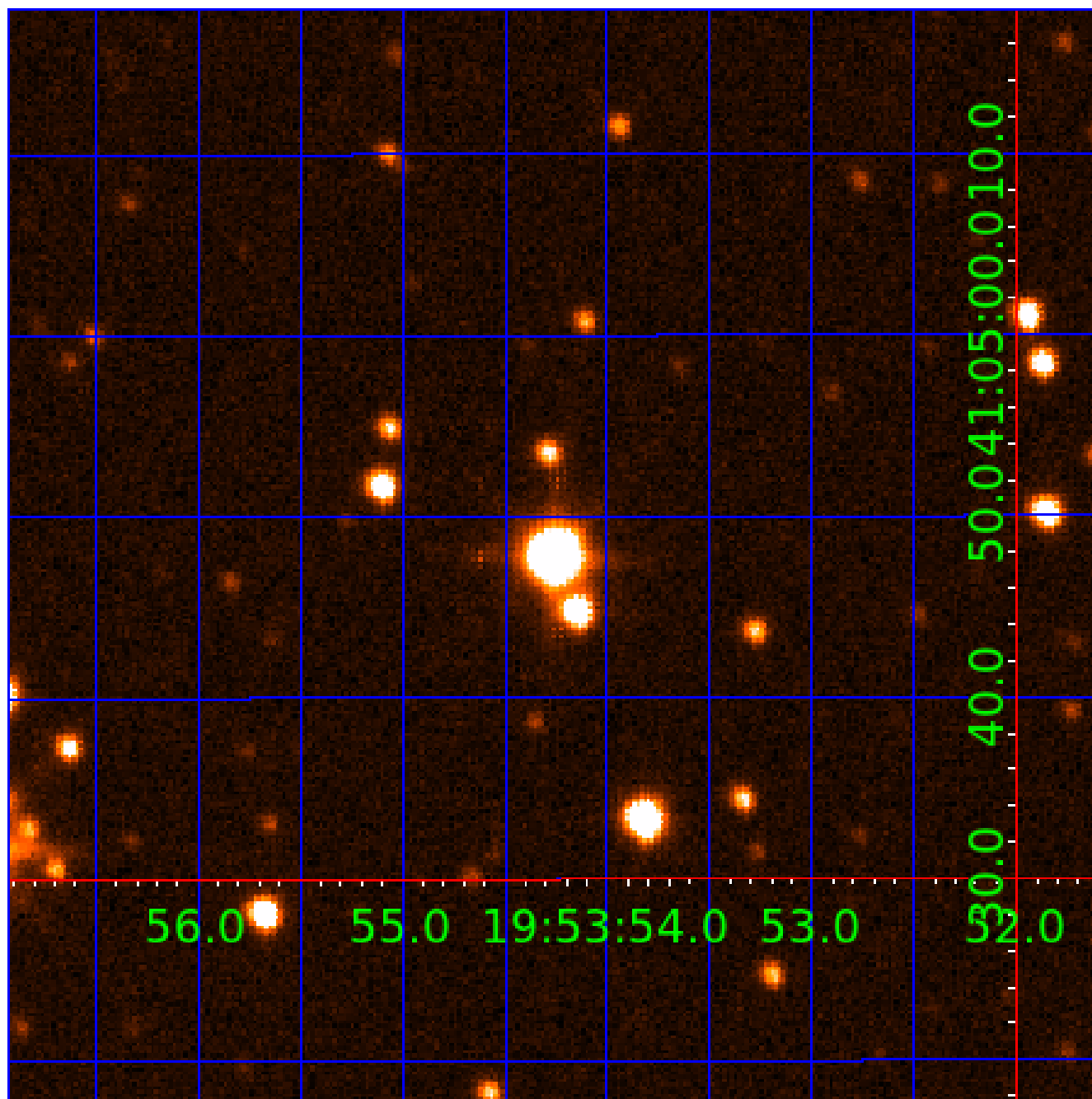


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005817566

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})
005817566-01	OBS	6138.01	4.206076	132.255235	110861.9	9.760	348.5	553.1	3.19	8212	126.68	9960.02
005817566-02	OBS	No	4.206034	134.369148	5645.6	9.171	24.2	42.6	3.19	8212	40.77	9960.15
005817566-03	OBS	No	312.905915	158.568433	266.1	6.000	19.4	-1.0	3.19	8212	5.25	31.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005817566-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
005817566-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005817566-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—CENT_NOFITS

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 005817566-03

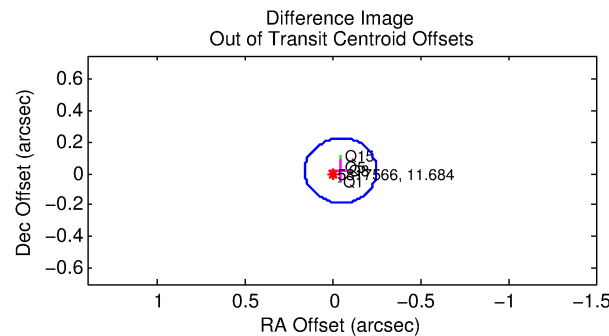
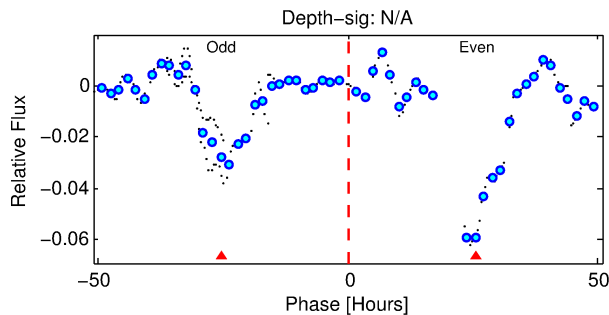
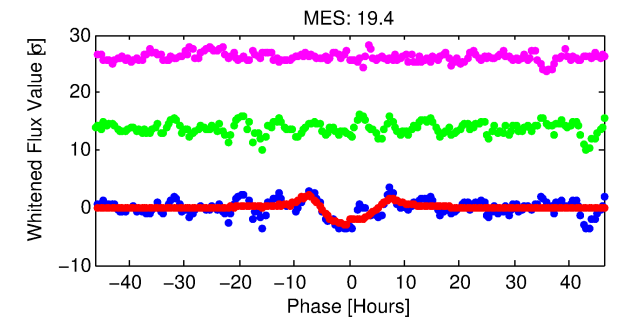
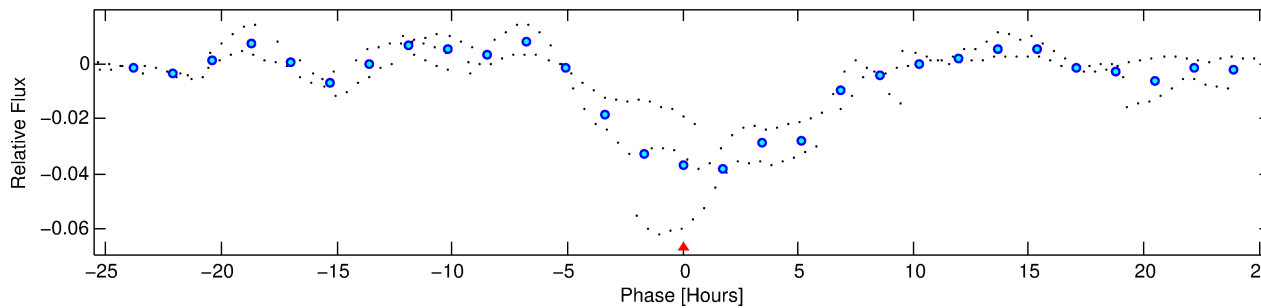
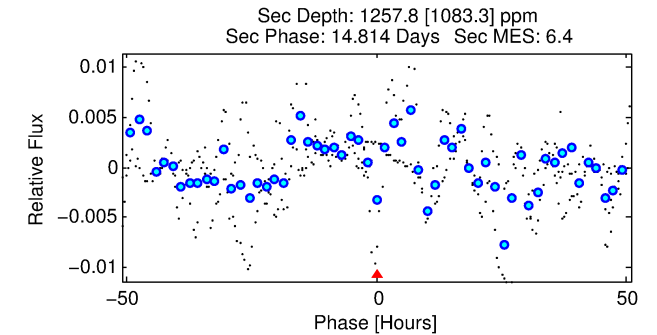
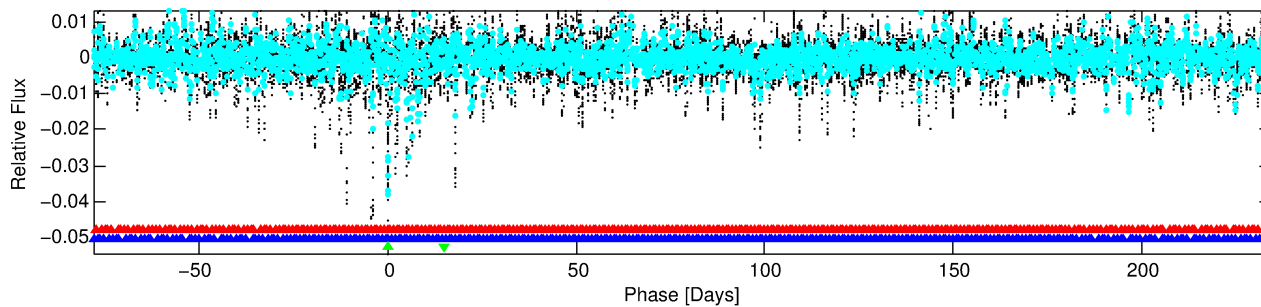
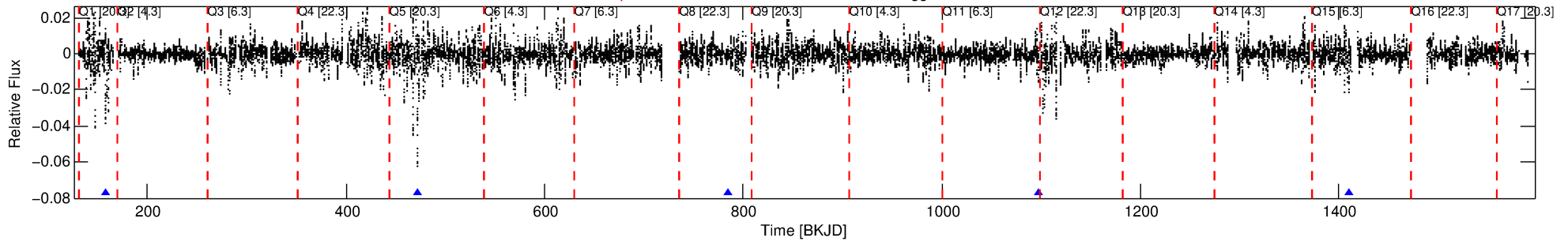
No Significant Match Found

DV One-Page Summary

KIC: 5817566 Candidate: 3 of 3 Period: 312.906 d

KOI: K06138 Corr: No Ephemeris Match

Kp: 11.68 R*: 3.19 Rs Teff: 8212.0 K Logg: 3.74 Fe/H: -0.180



TPS TCE Results:

Period = 312.90592 d
Epoch = 158.5684 BKJD

DV fit results are unavailable

DV Diagnostic Results:

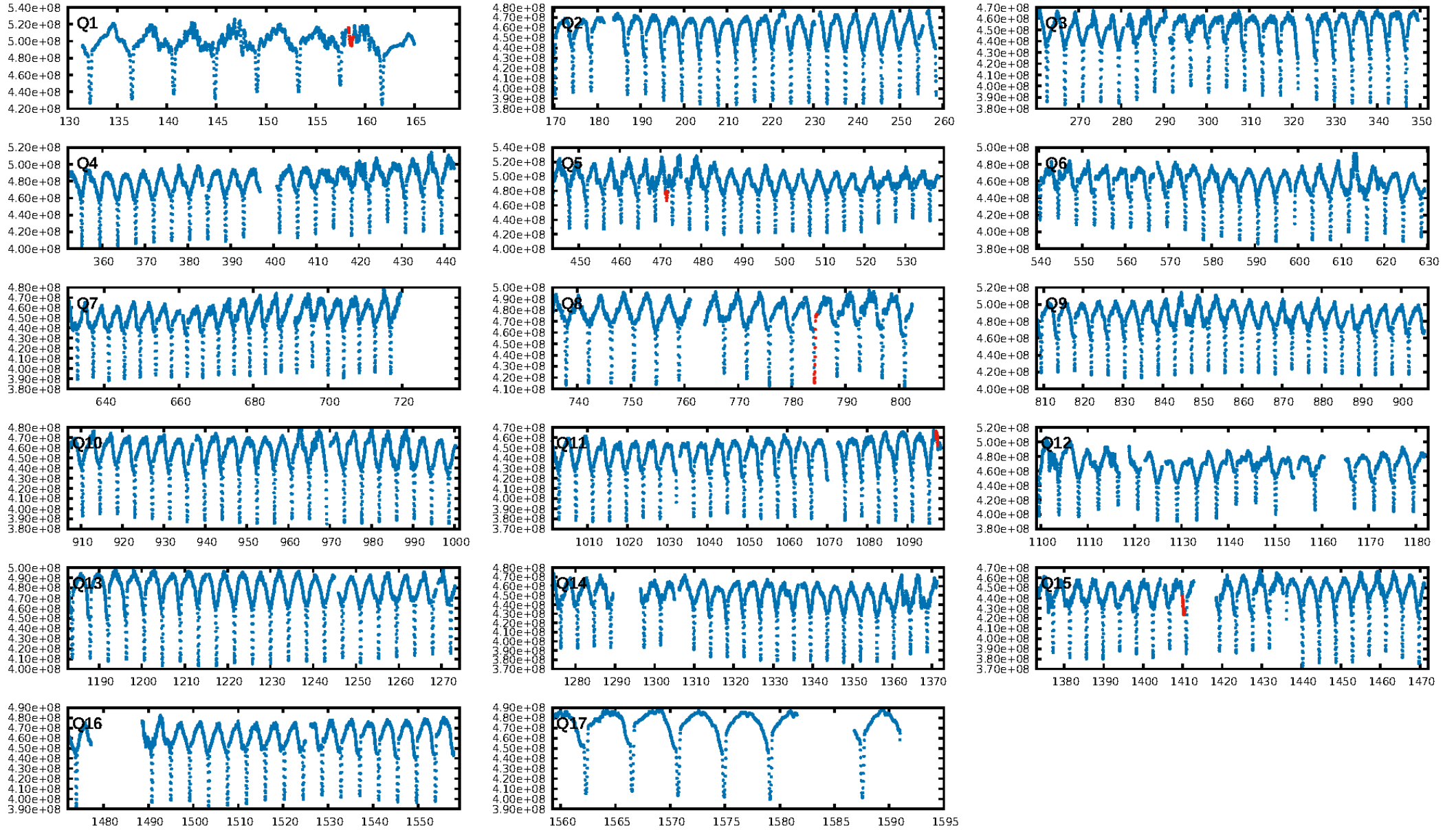
ShortPeriod-sig: 100.0% [646.68σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 11.85

Centroid-sig: N/A
Centroid-so: 0.333 arcsec [18.80σ]
OotOffset-rm: 0.049 arcsec [0.72σ]
KicOffset-rm: 0.144 arcsec [2.00σ]
OotOffset-st: 0/1/1/2 [4]
KicOffset-st: 0/1/1/2 [4]
DiffImageQuality-fgm: 0.75 [3/4]
DiffImageOverlap-fno: 0.25 [1/4]

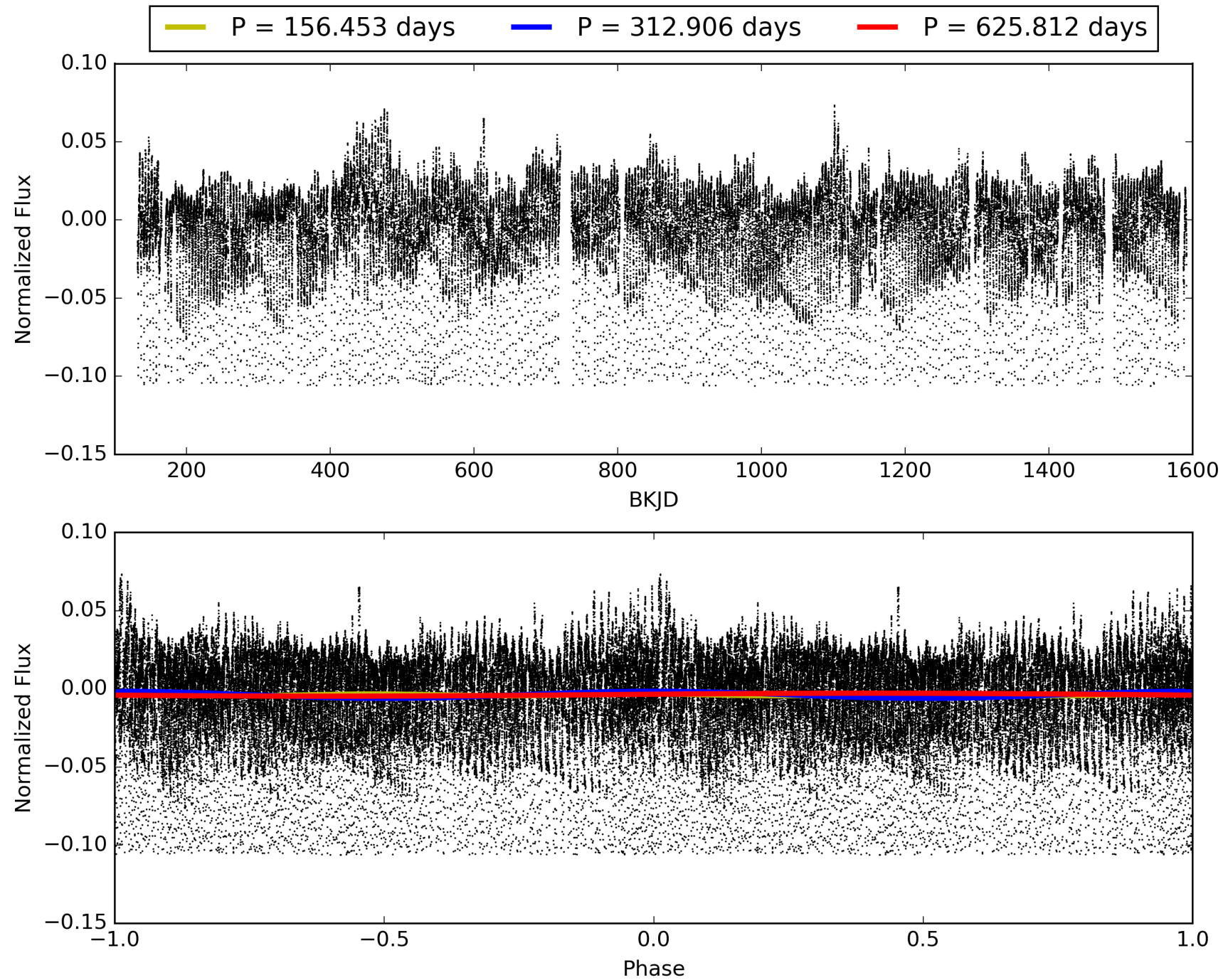
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:44:00 Z

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

TCE 005817566-03, PDC Light Curves

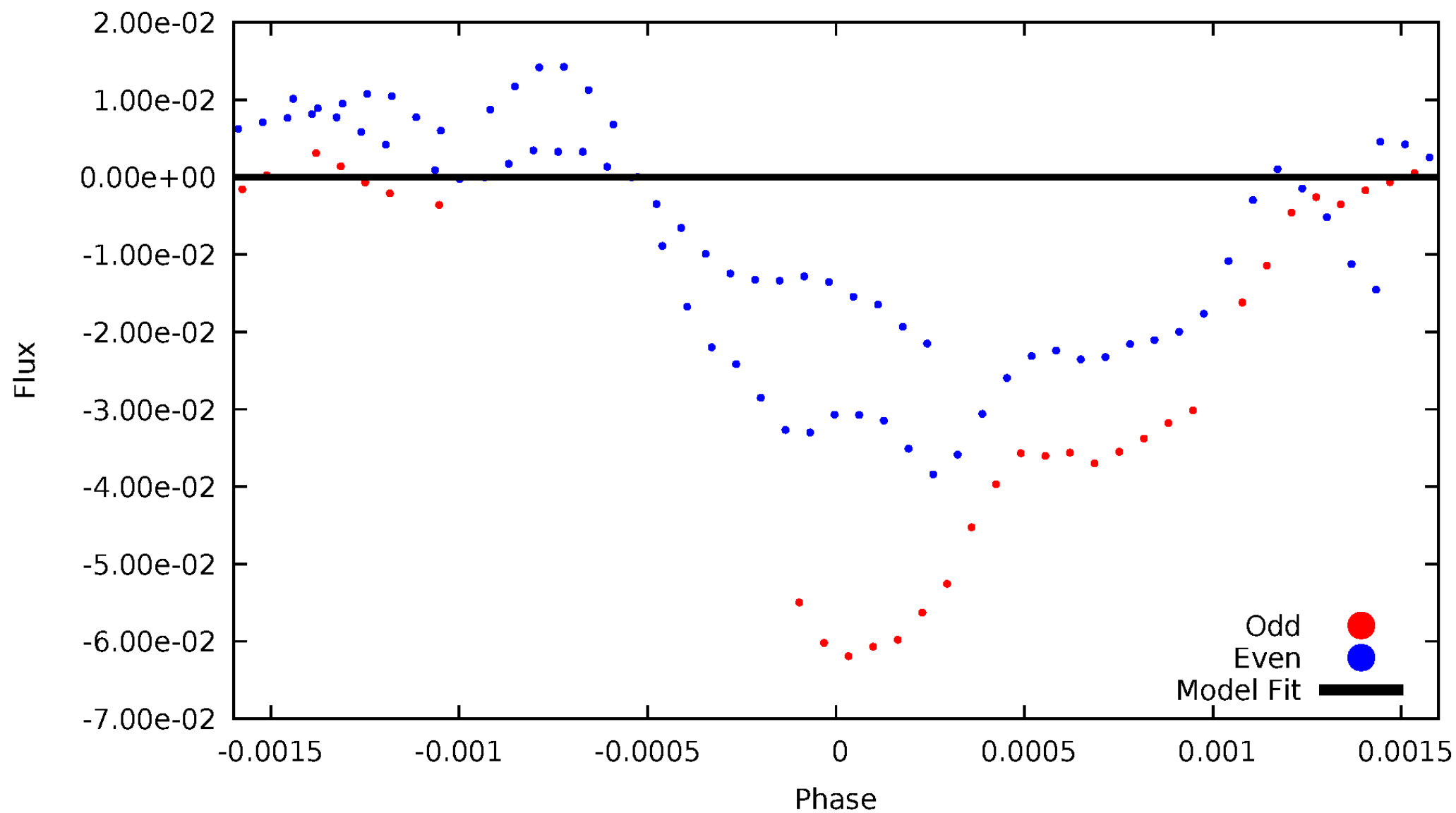


TCE 005817566-03



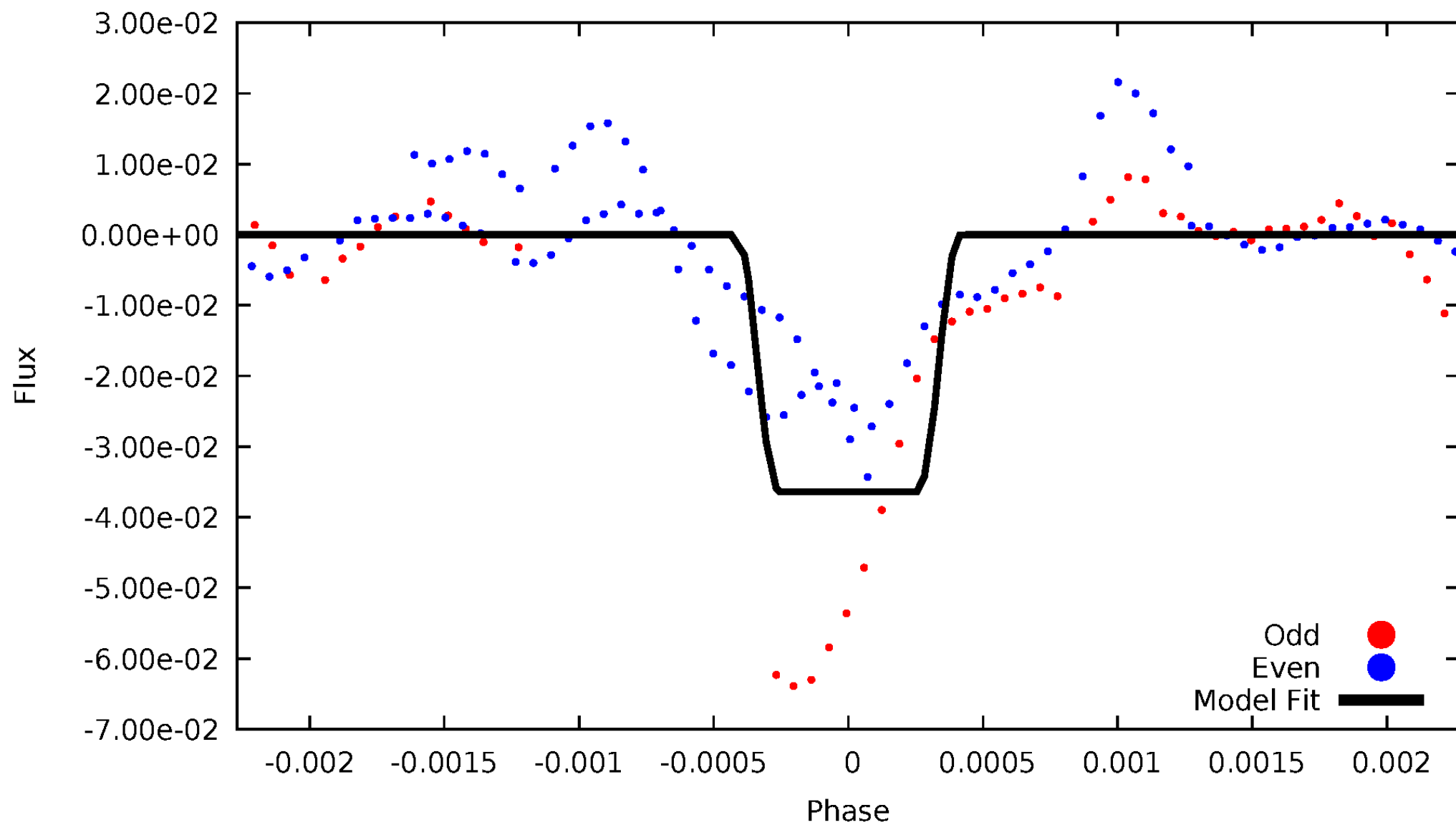
DV Odd/Even

TCE 005817566-03



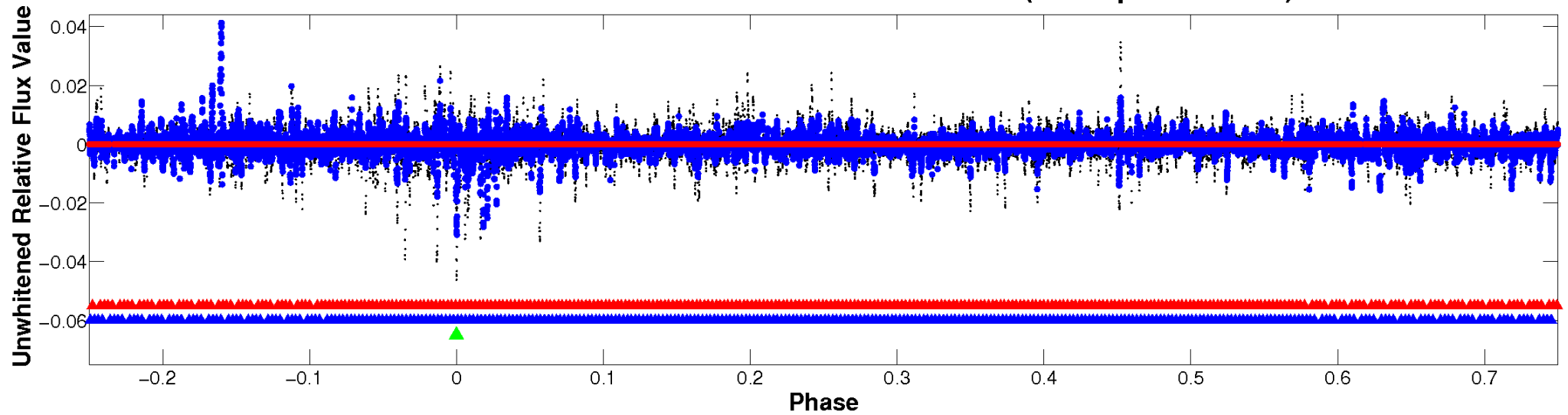
ALT Odd/Even

TCE 005817566-03

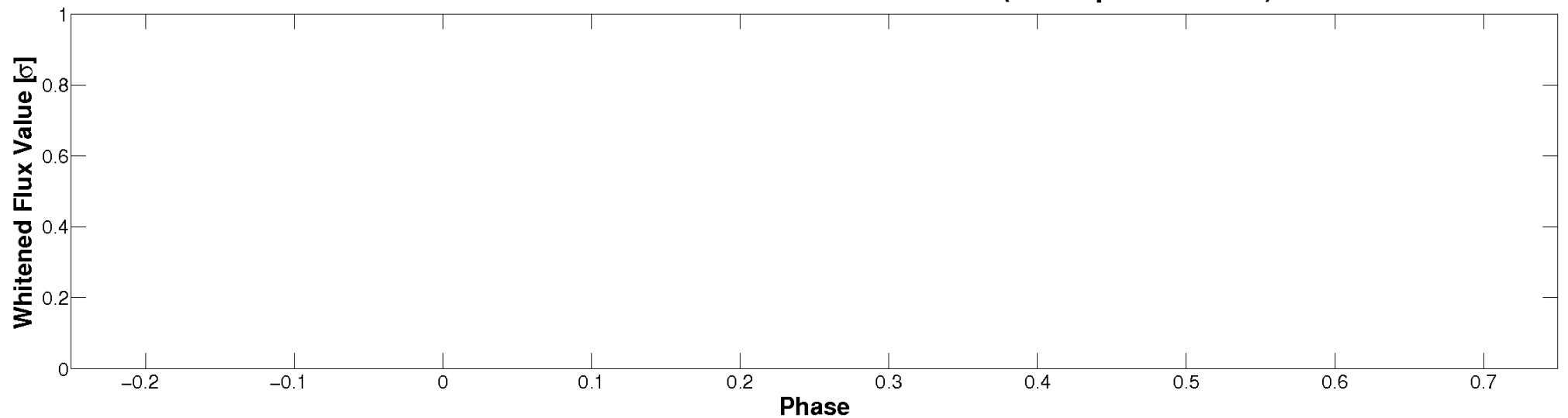


Non-Whitened Vs. Whitened Light Curve

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

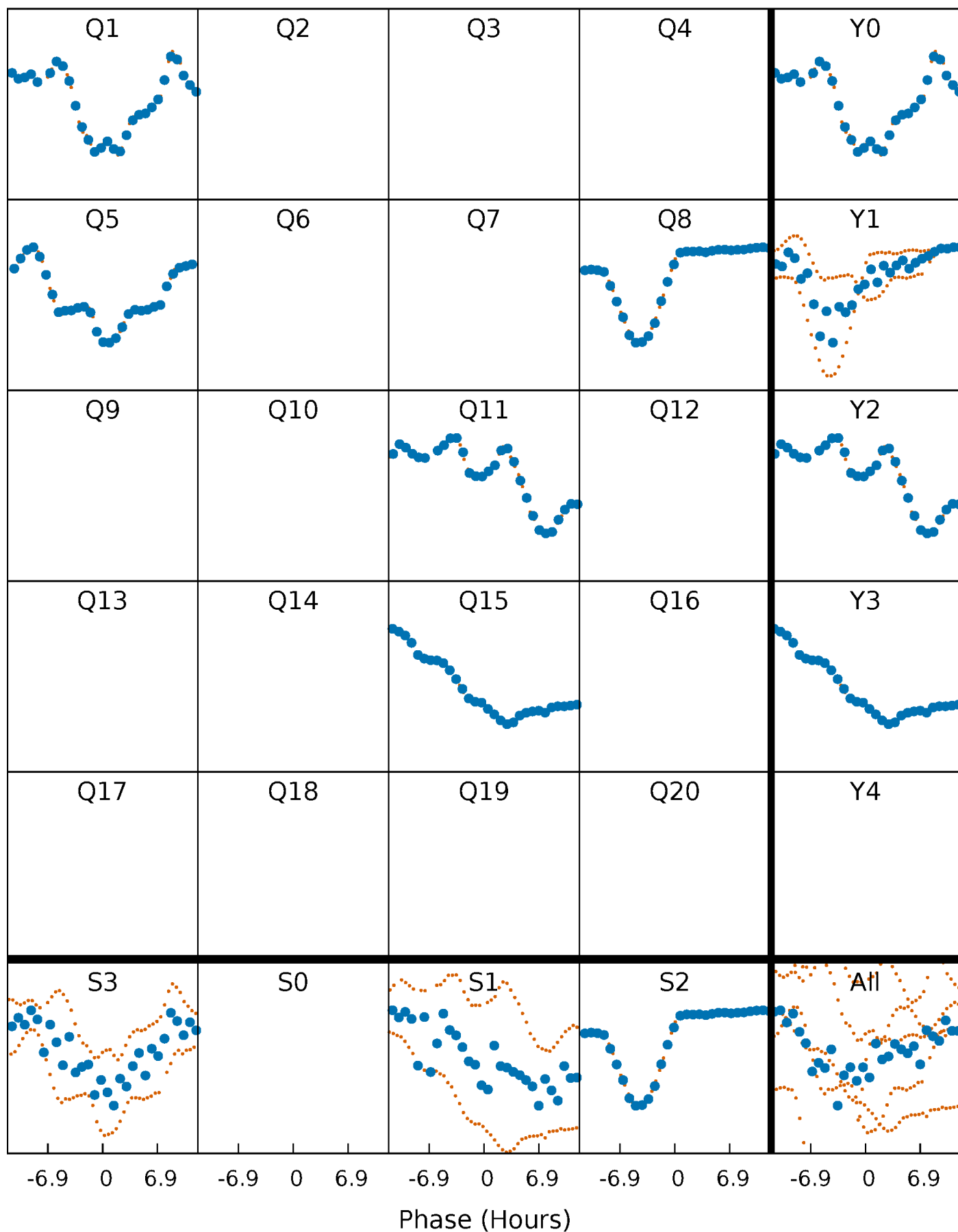


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



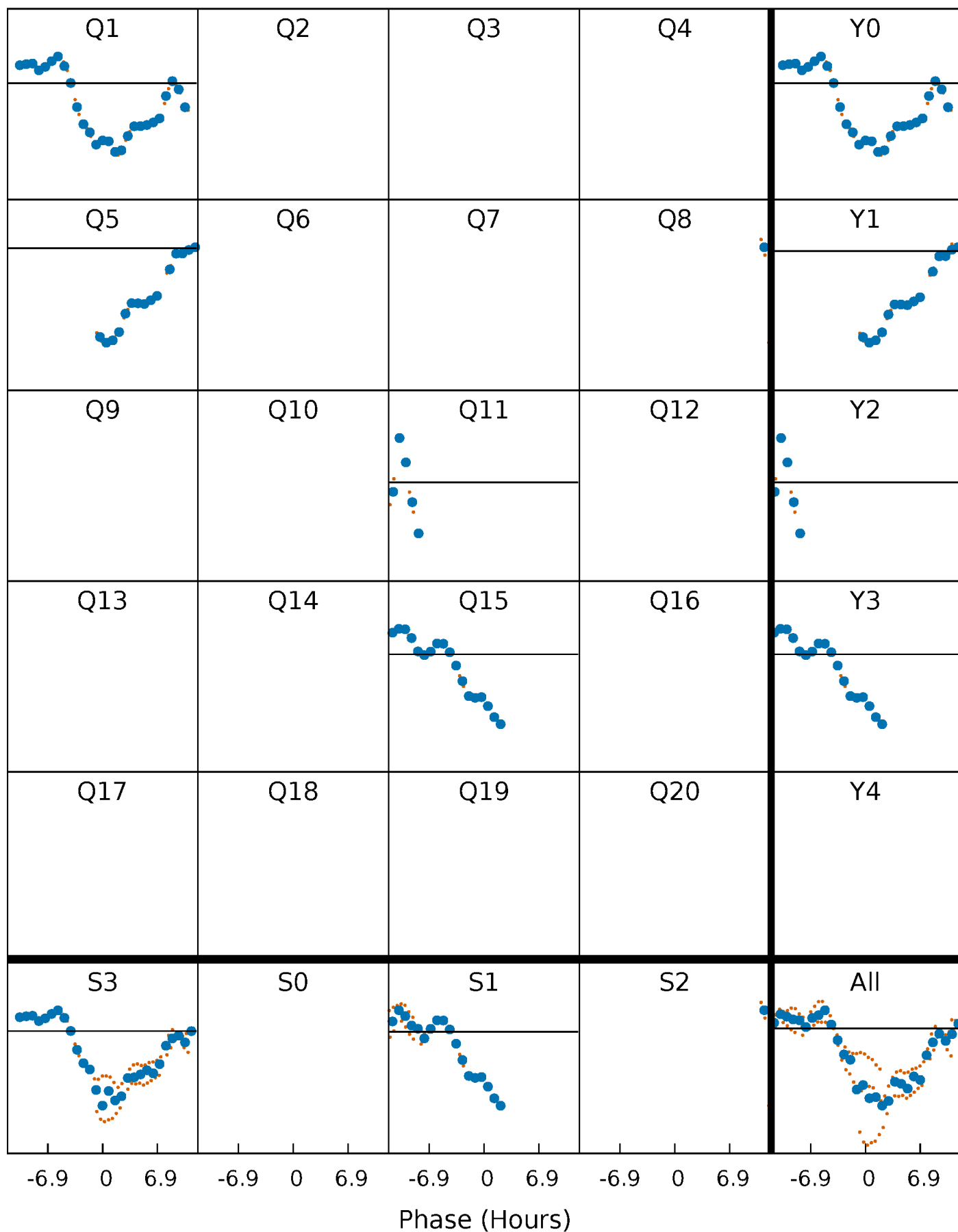
PDC Quarter-Phased Transit Curves

TCE 005817566-03 $P=312.905915$ Days $T_0=158.568433$ (BKJD)



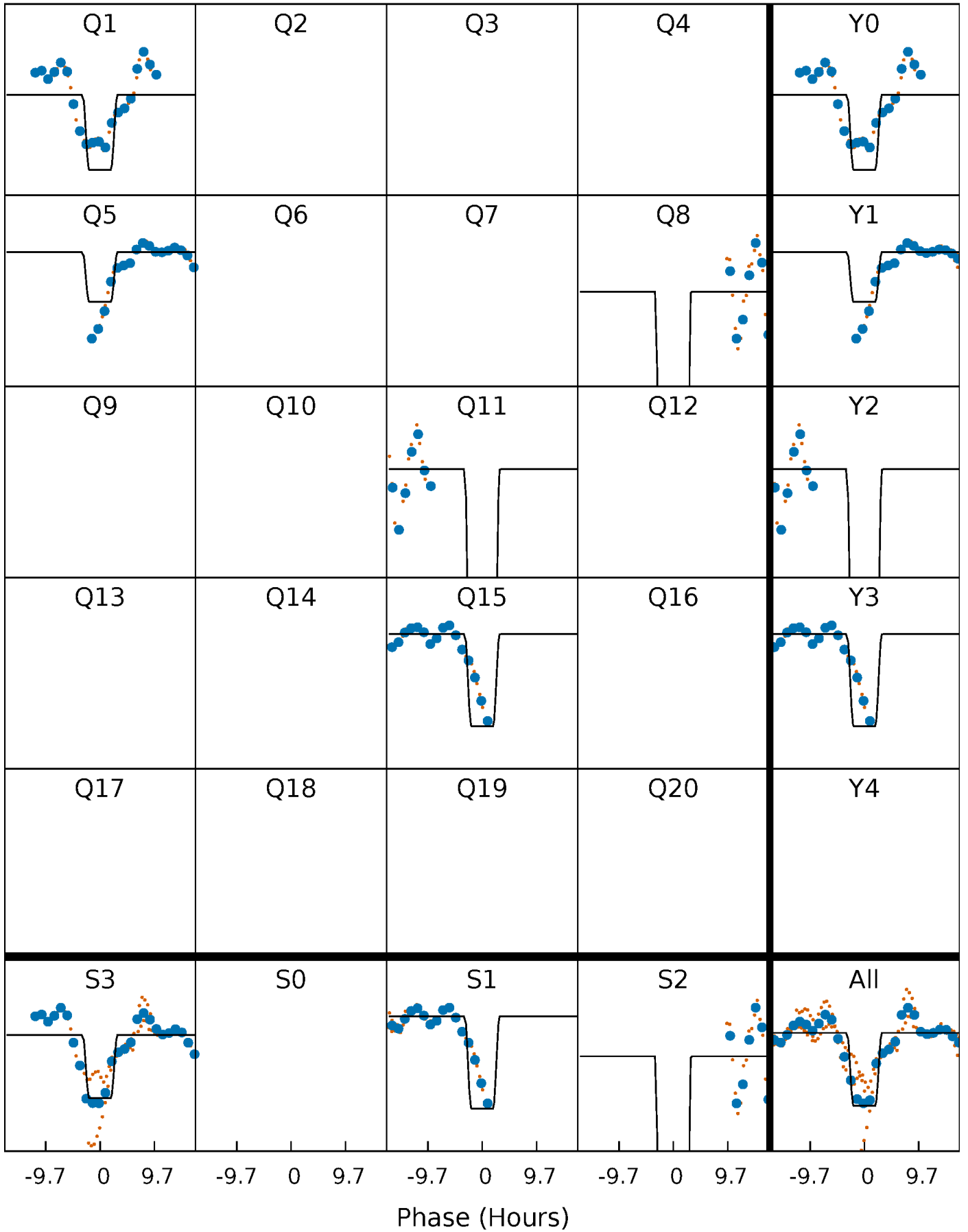
DV Quarter-Phased Transit Curves

TCE 005817566-03 $P=312.905915$ Days $T_0=158.568433$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

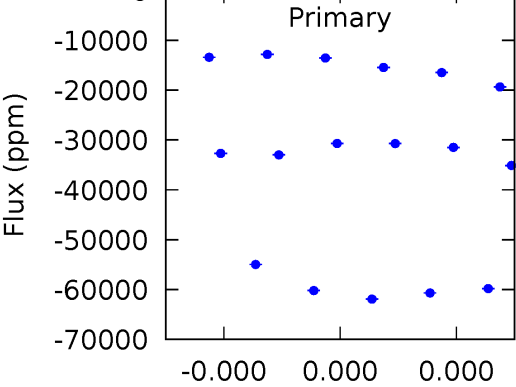
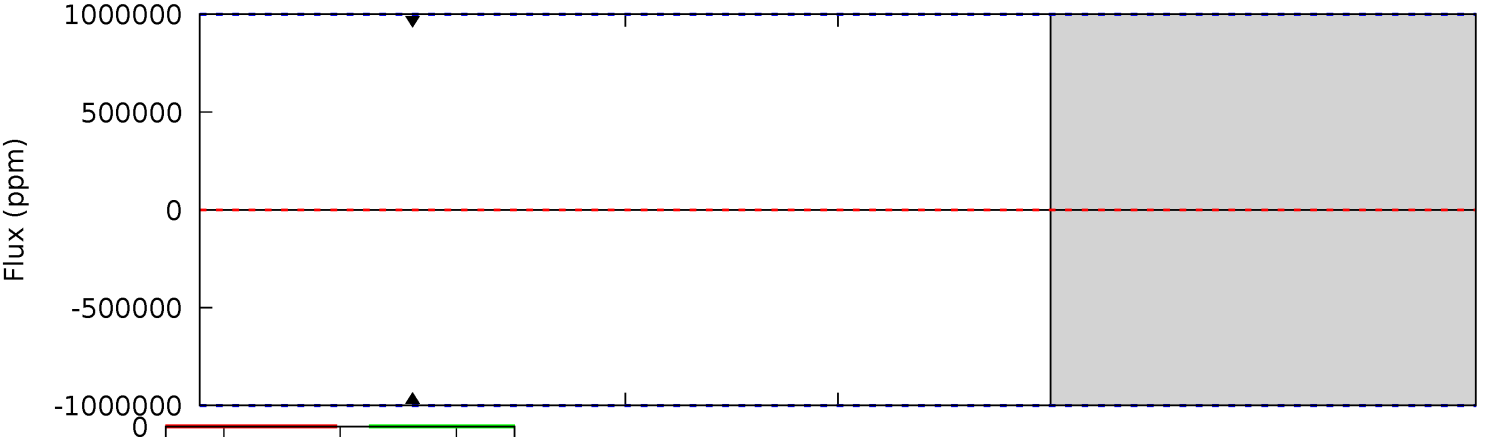
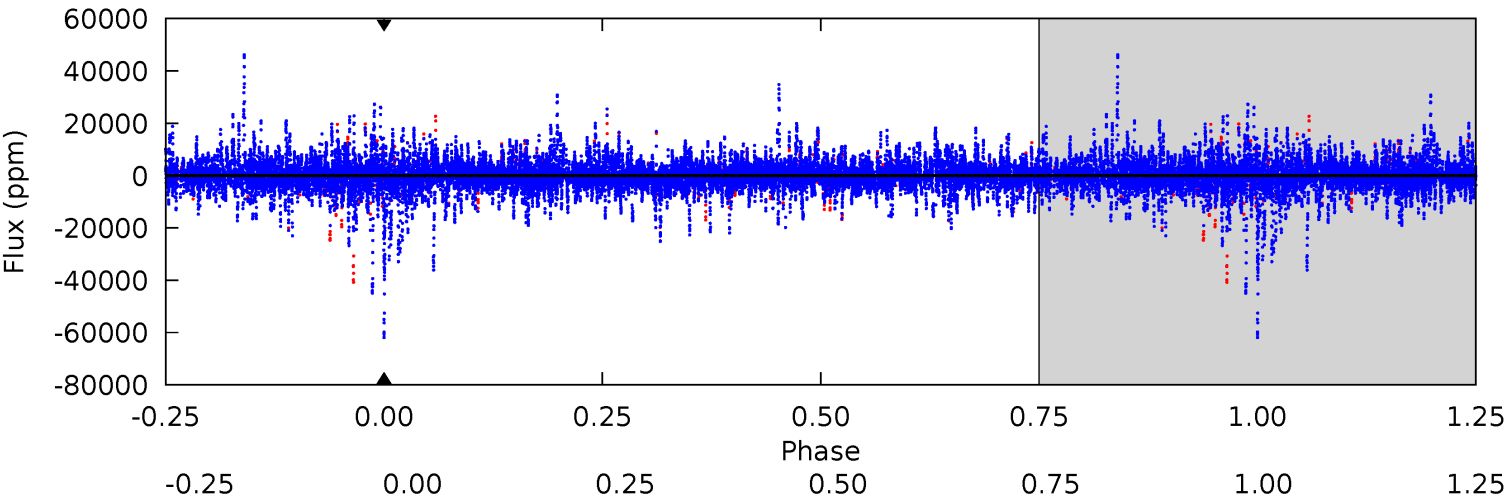
TCE 005817566-03 $P=312.905915$ Days $T_0=158.621850$ (BKJD)



DV Model-Shift Uniqueness Test

005817566-03, P = 312.905915 Days, E = 158.568433 Days

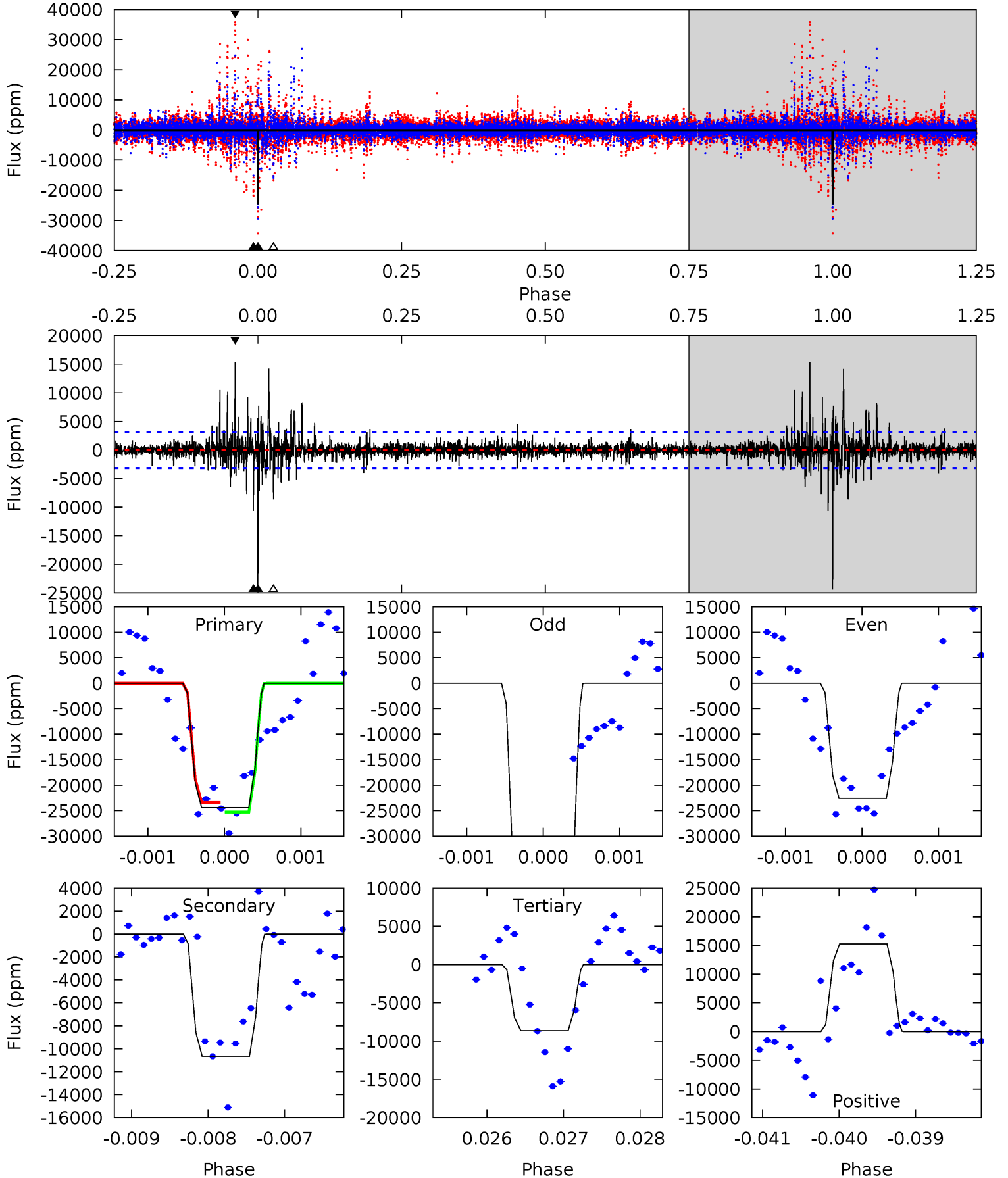
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005817566-03, P = 312.905915 Days, E = 158.621850 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.5	18.6	15.0	26.6	5.49	3.35	2.04	27.4	15.8	3.51	-8.09	25.5	1.33	0.39	0



Stellar Parameters For KIC 005817566

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8212^{+229}_{-343}	$3.736^{+0.432}_{-0.108}$	$-0.180^{+0.200}_{-0.350}$	$3.185^{+0.789}_{-1.465}$	$2.016^{+0.372}_{-0.496}$	$0.088^{+0.340}_{-0.031}$
	+3%/-4%	+12%/-3%	+111%/-194%	+25%/-46%	+18%/-25%	+387%/-35%
Source	KIC0	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 005817566-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$21.03^{+28.04}_{-13.97}$	813^{+71}_{-86}	-4745^{+59672}_{-47271}	$-764.846^{+271301.914}_{-246007.442}$
Alt.	-10649 ± 574	$58.05^{+36.41}_{-29.32}$	813^{+65}_{-95}	5865^{+2768}_{-976}	2348^{+6626}_{-1469}

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 $A_{\text{obs}} \gg 1.0$

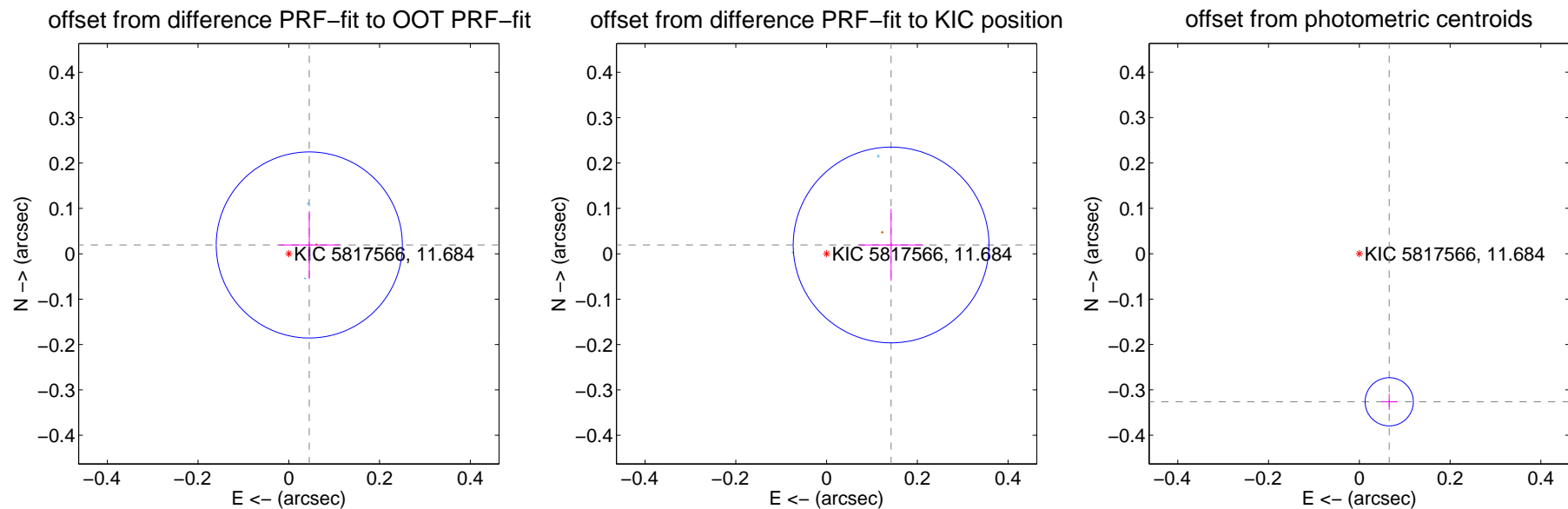
DV Centroid Data

Supplemental centroid analysis for 005817566-03. **Kepler magnitude: 11.68.** Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

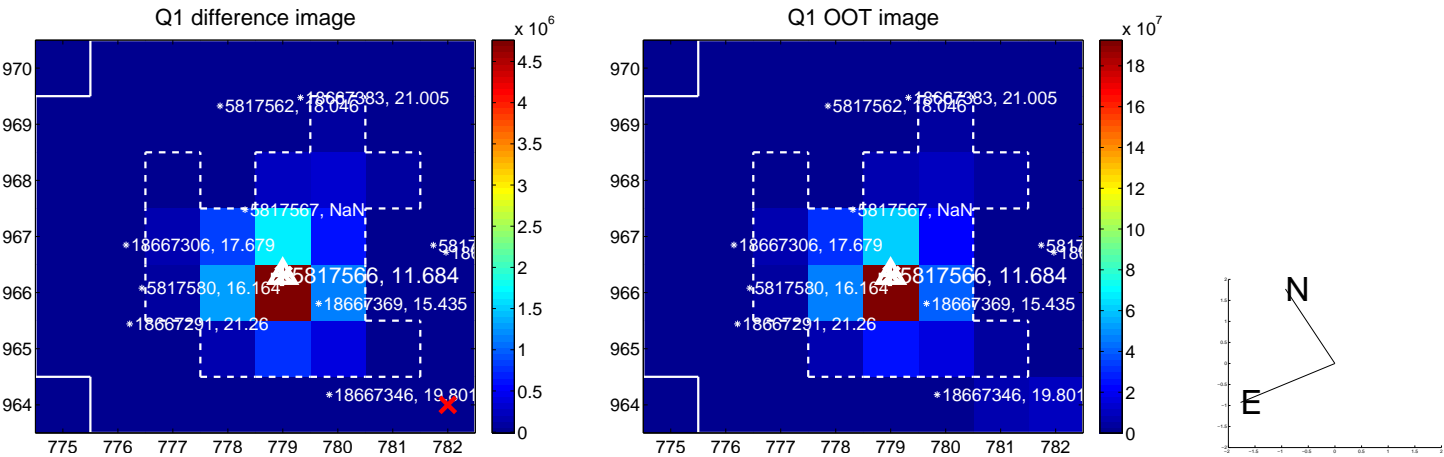
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.049 ± 0.068	0.72	-0.045 ± 0.067	0.019 ± 0.075
PRF-fit source offset from KIC position	0.144 ± 0.072	2.00	-0.142 ± 0.071	0.019 ± 0.079
photometric centroid source offset	0.33 ± 0.02	18.80	-0.07 ± 0.02	-0.33 ± 0.02

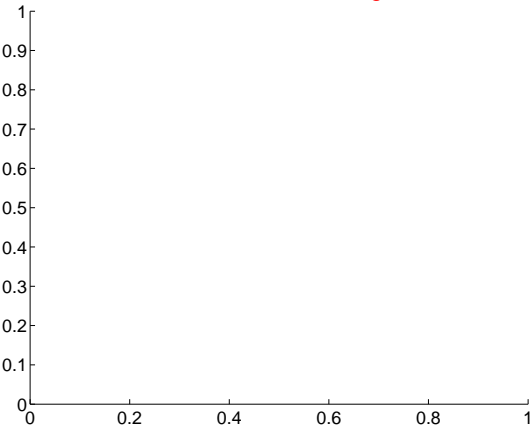


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

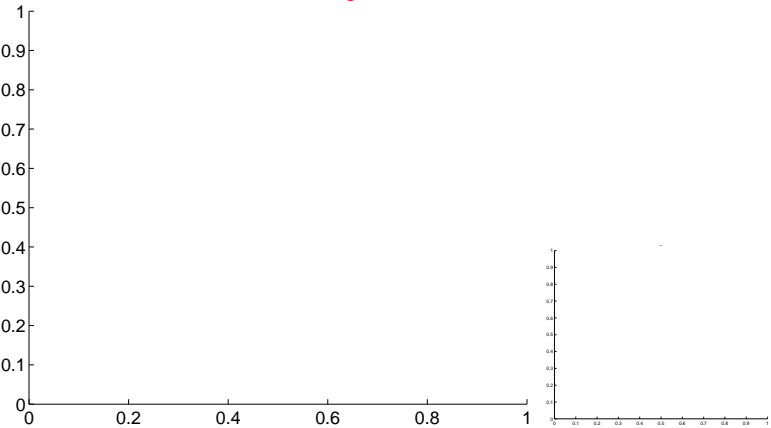
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



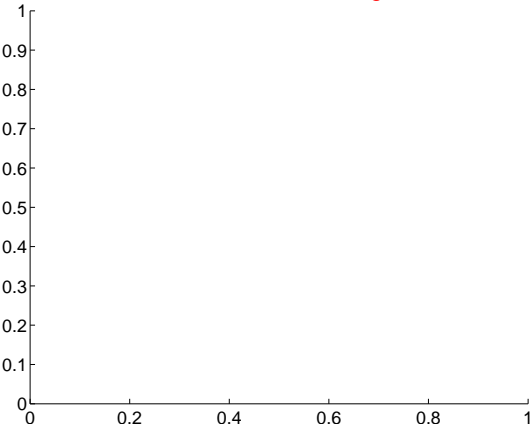
Q2 no difference image



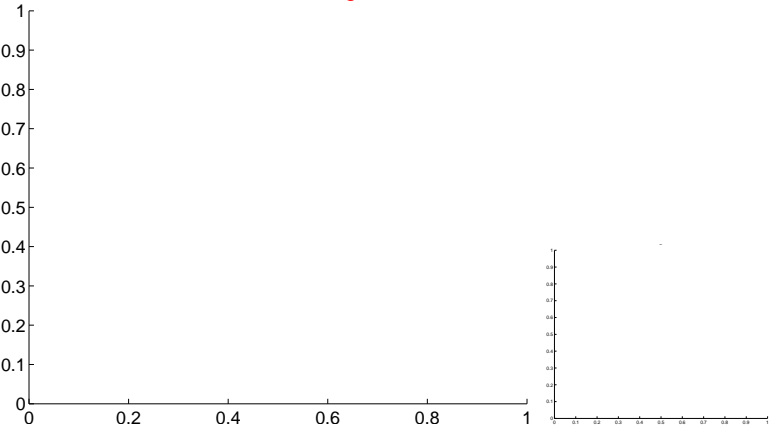
Q2 no OOT image



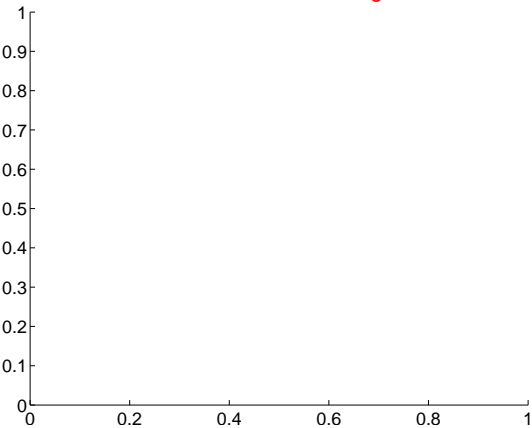
Q3 no difference image



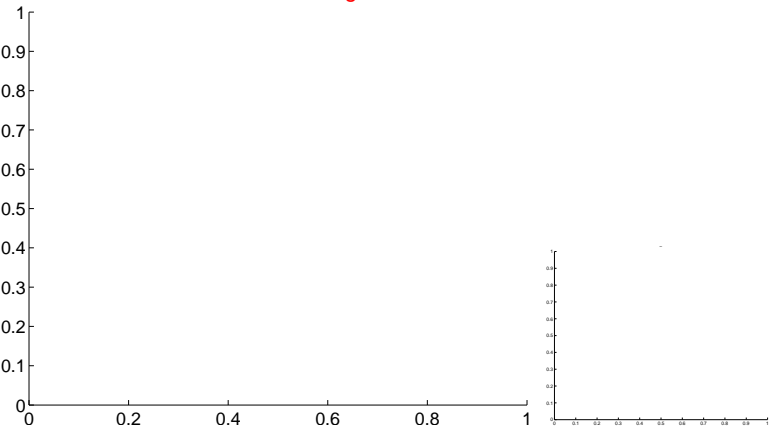
Q3 no OOT image



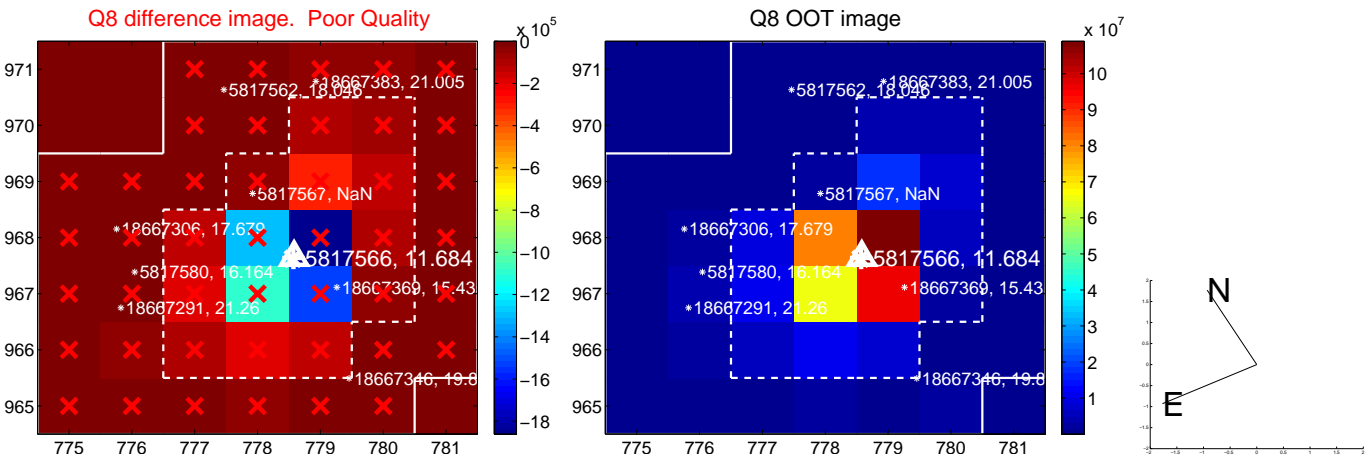
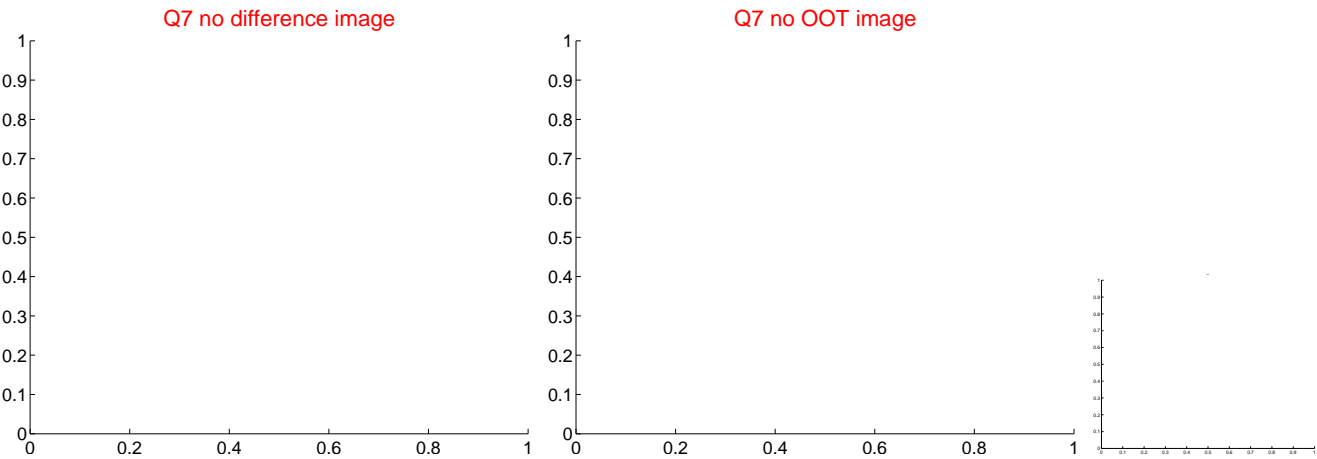
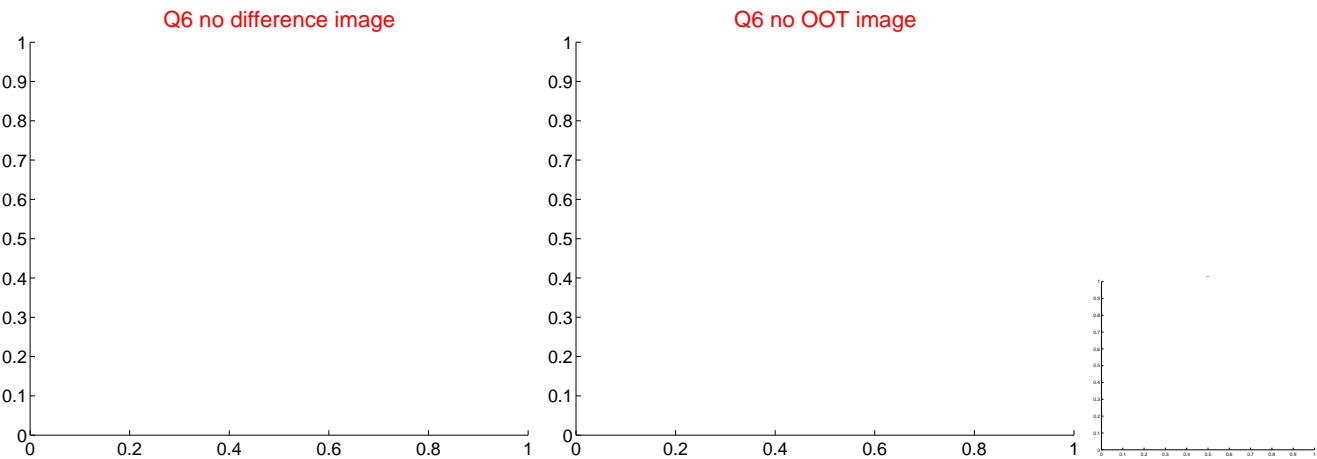
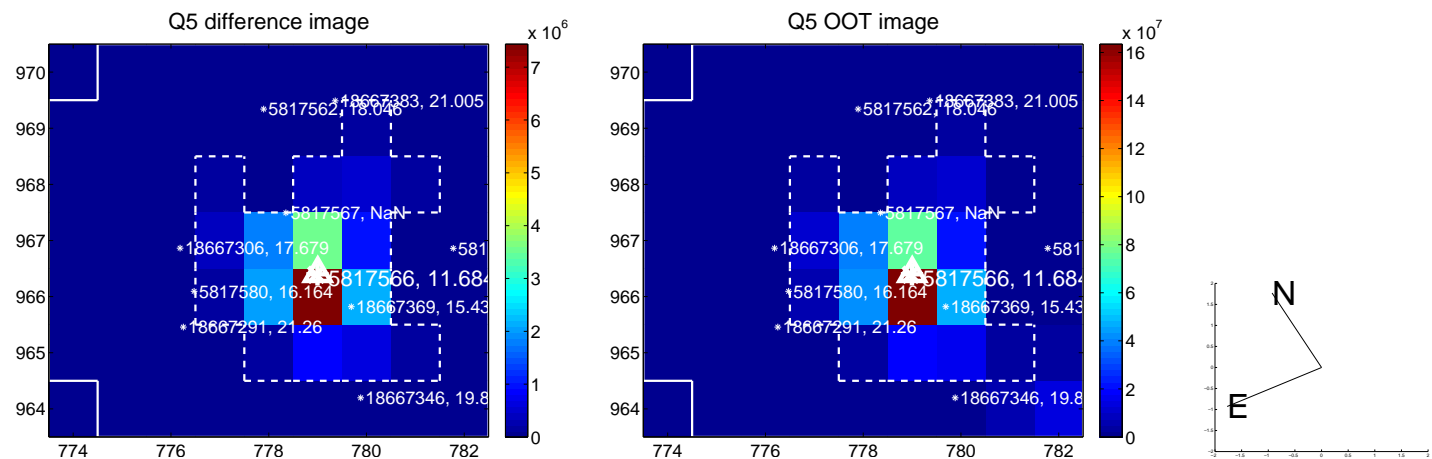
Q4 no difference image



Q4 no OOT image



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.

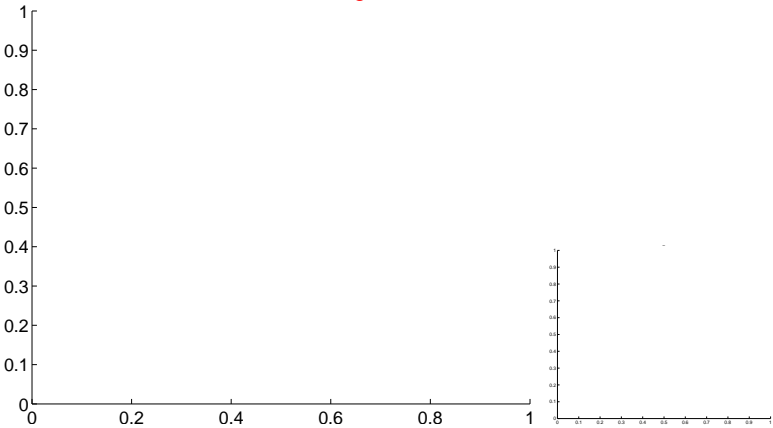


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q13 no difference image



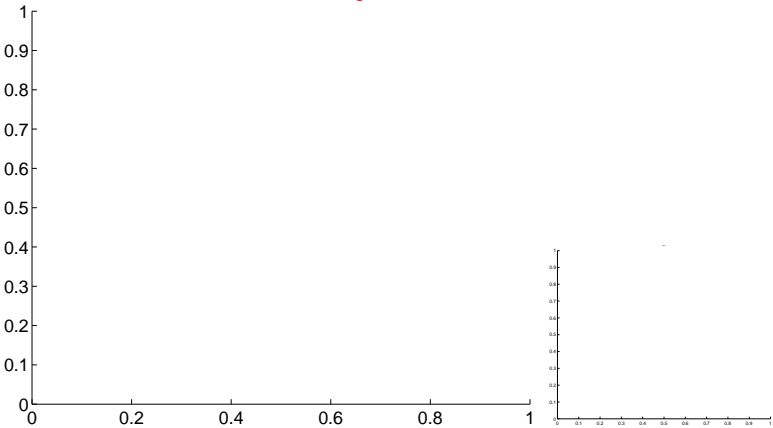
Q13 no OOT image



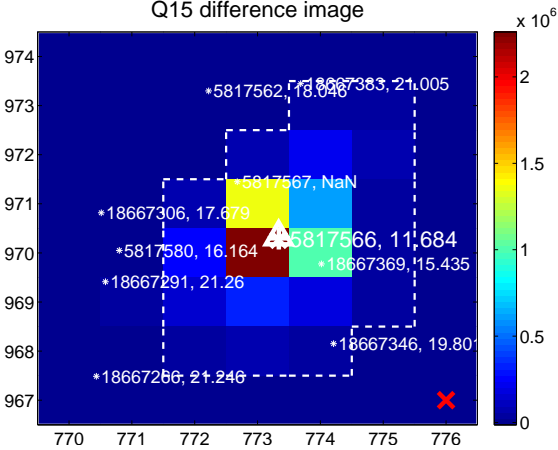
Q14 no difference image



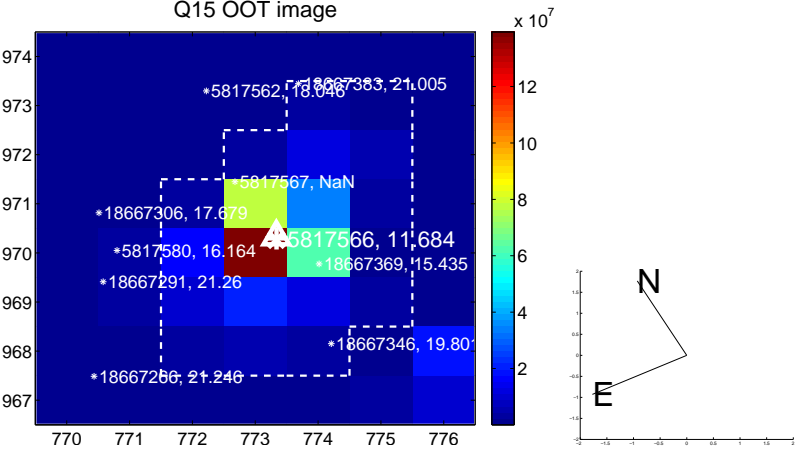
Q14 no OOT image



Q15 difference image



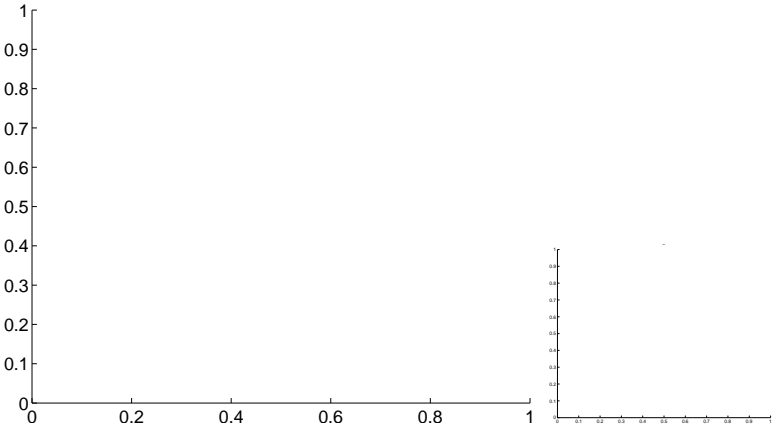
Q15 OOT image



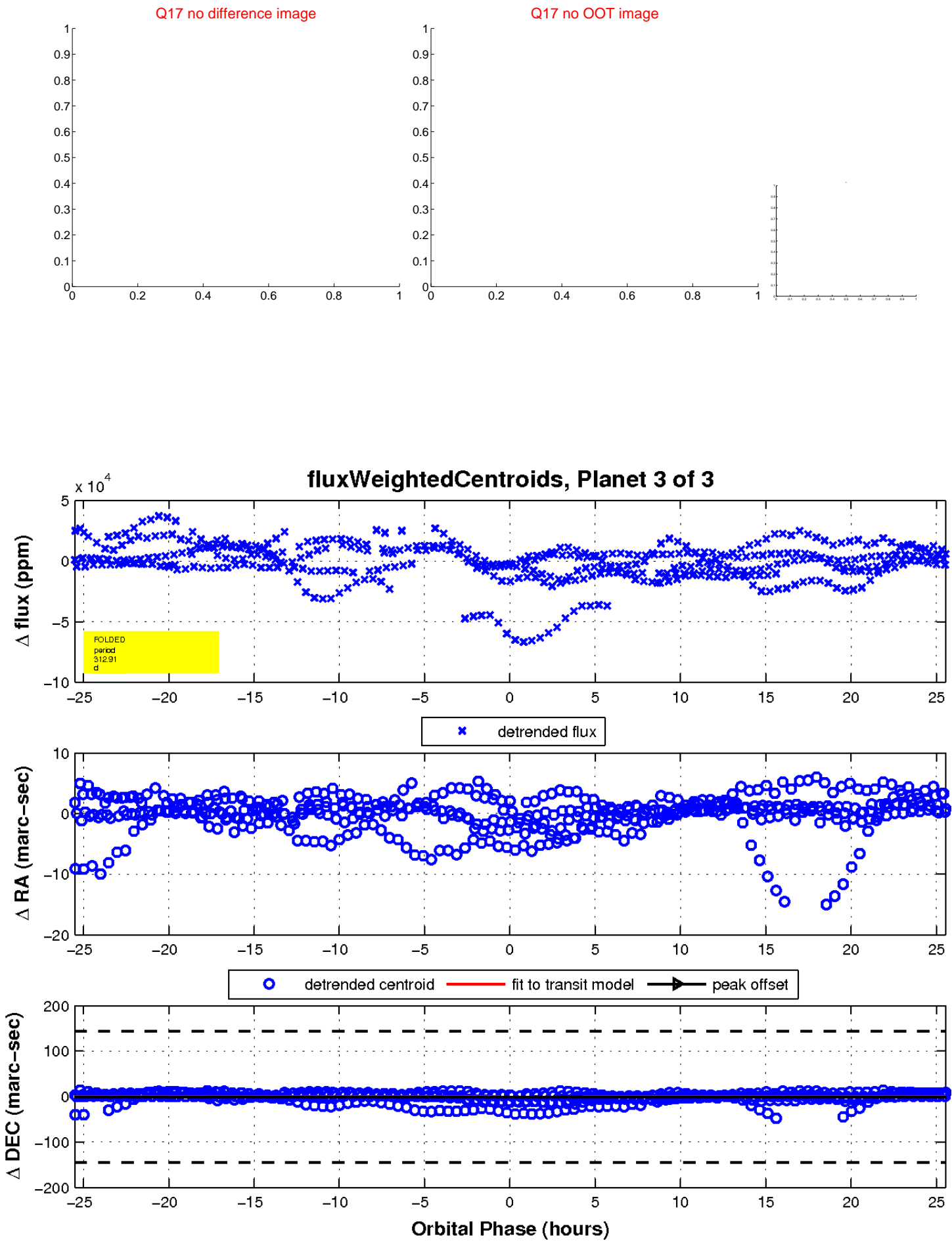
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

