

KIC 007119481

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})
007119481-01	OBS	0566.01	25.855062	140.863271	609.0	4.017	26.6	29.2	0.96	6122	2.62	38.89
007119481-02	OBS	0566.03	42.066567	165.060847	177.4	6.936	8.4	8.9	0.96	6122	1.46	20.32
007119481-03	OBS	0566.02	14.157251	135.606175	117.4	3.833	8.3	7.7	0.96	6122	1.25	86.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007119481-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT
007119481-02	OBS	PC	0.96	0	0	0	0	NO_COMMENT
007119481-03	OBS	PC	0.70	0	0	0	0	NO_COMMENT

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.

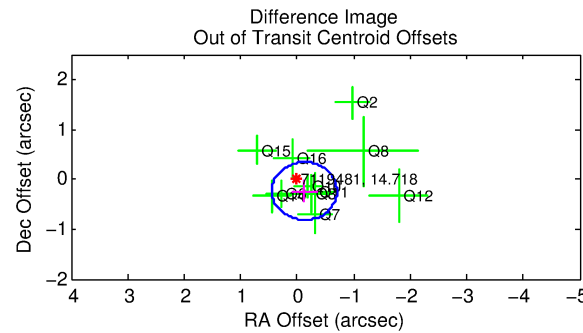
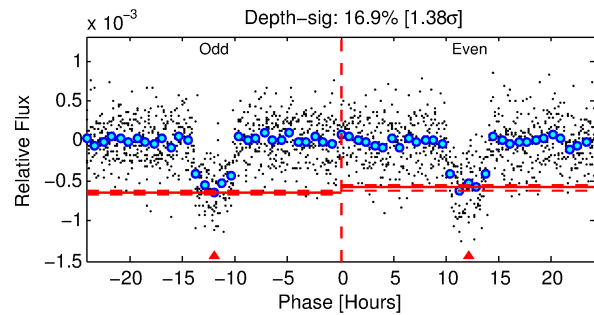
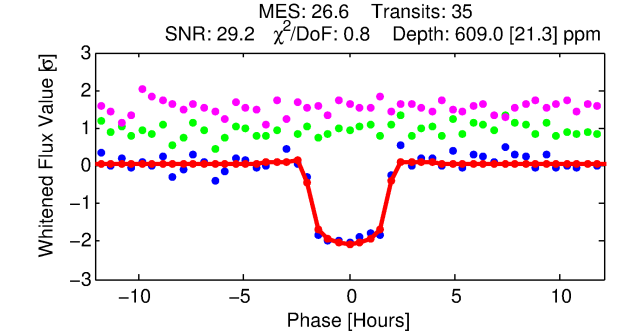
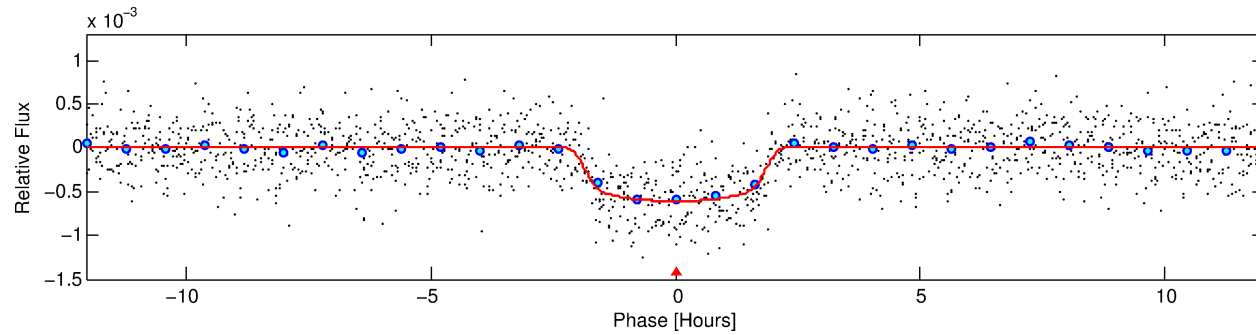
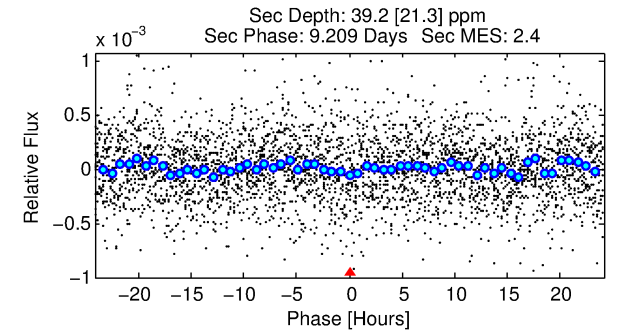
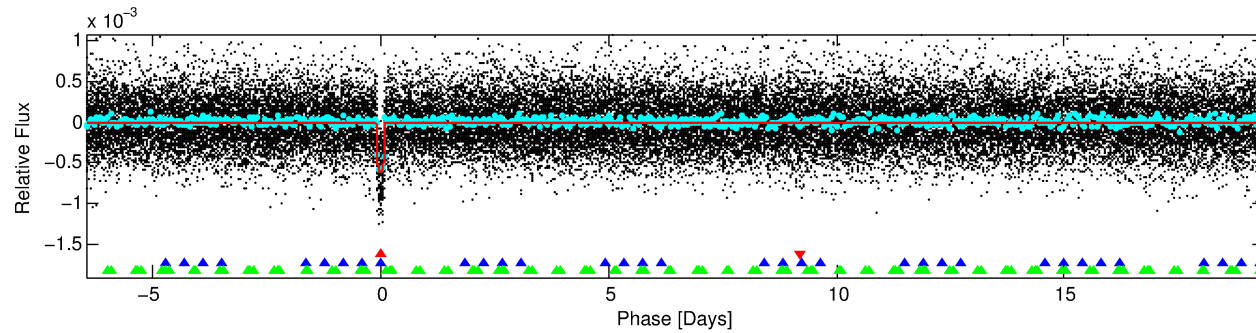
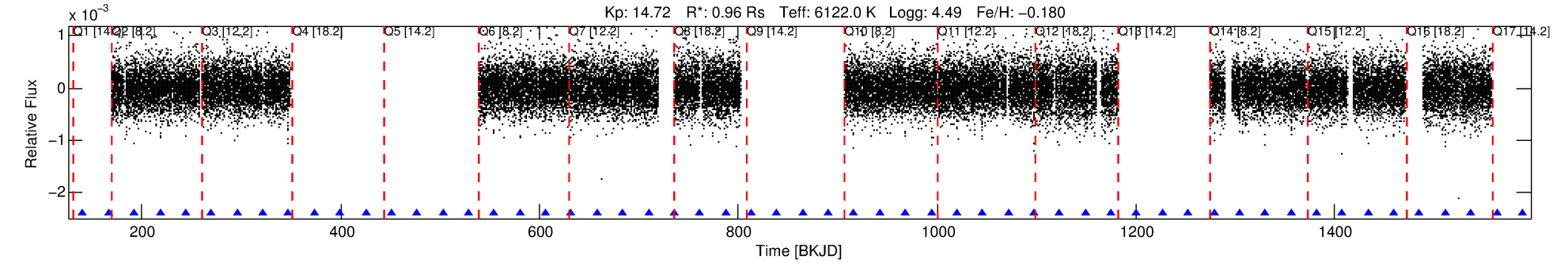
Ephemeris Match Information For 007119481-01

No Significant Match Found

DV One-Page Summary

KIC: 7119481 Candidate: 1 of 3 Period: 25.855 d

KOI: K00566.01 Corr: 0.989



DV Fit Results:

Period = 25.85506 [0.00009] d
Epoch = 140.8633 [0.0031] BKJD
Rp/R* = 0.0249 [0.0049]
a/R* = 32.24 [31.76]
b = 0.79 [0.48]
Seff = 38.89 [16.06]
Teq = 637 [66] K
Rp = 2.62 [0.97] Re
a = 0.1734 [0.0462] AU
Ag = 94.45 [73.50] [1.27σ]
Teffp = 3069 [526] K [4.59σ]

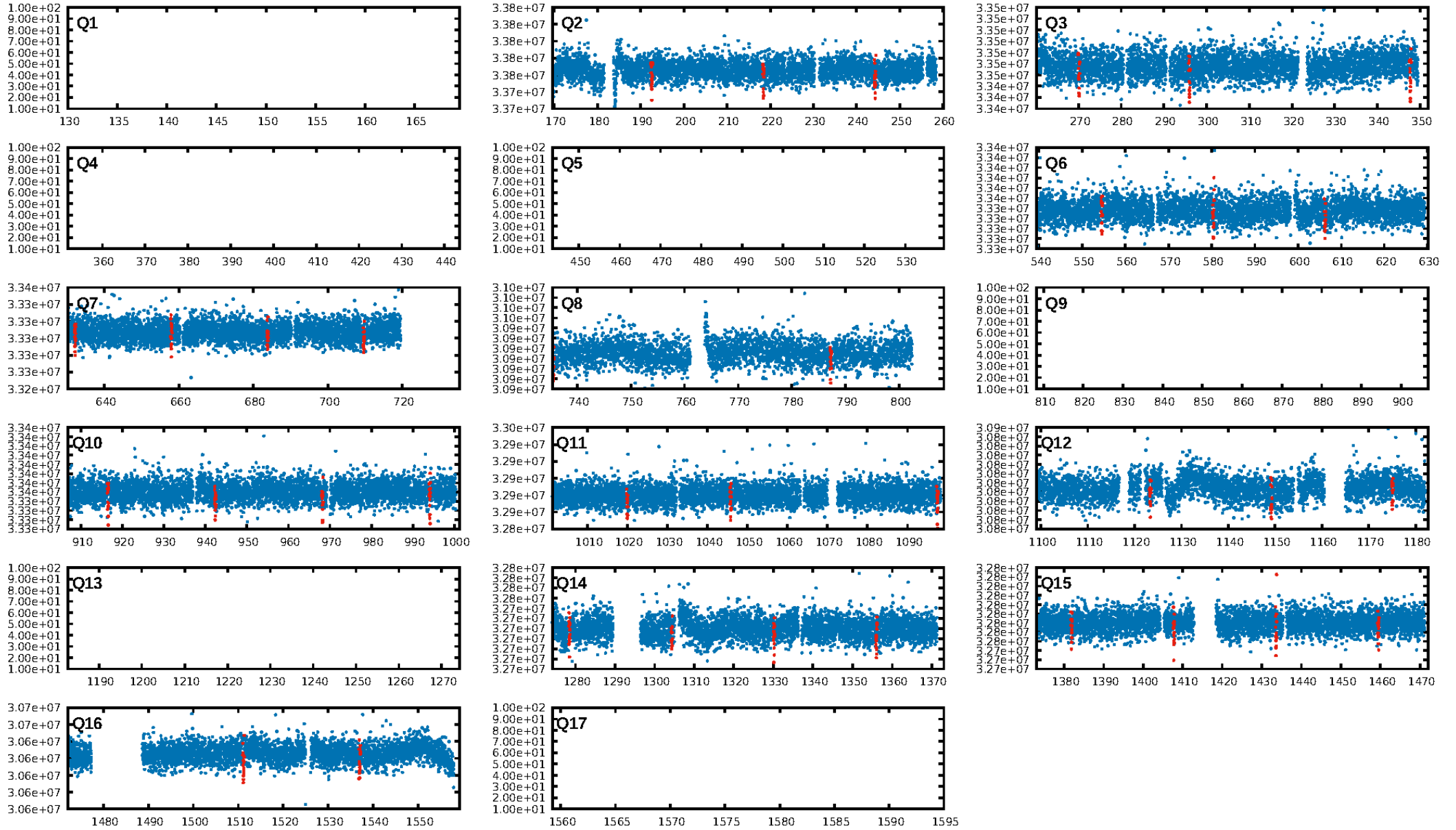
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [50.56σ]
LongPeriod-sig: 100.0% [48.54σ]
ModelChiSquare2-sig: 83.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.09e-151
RollingBand-fgt: 1.00 [35/35]
GhostDiagnostic-chr: -32.61
Centroid-sig: 56.8%
Centroid-so: 0.540 arcsec [1.19σ]
OotOffset-rm: 0.271 arcsec [1.41σ]
KicOffset-rm: 0.093 arcsec [0.48σ]
OotOffset-st: 4/4/3/0 [11]
KicOffset-st: 4/4/3/0 [11]
DiffImageQuality-fgm: 1.00 [11/11]
DiffImageOverlap-fno: 0.82 [9/11]

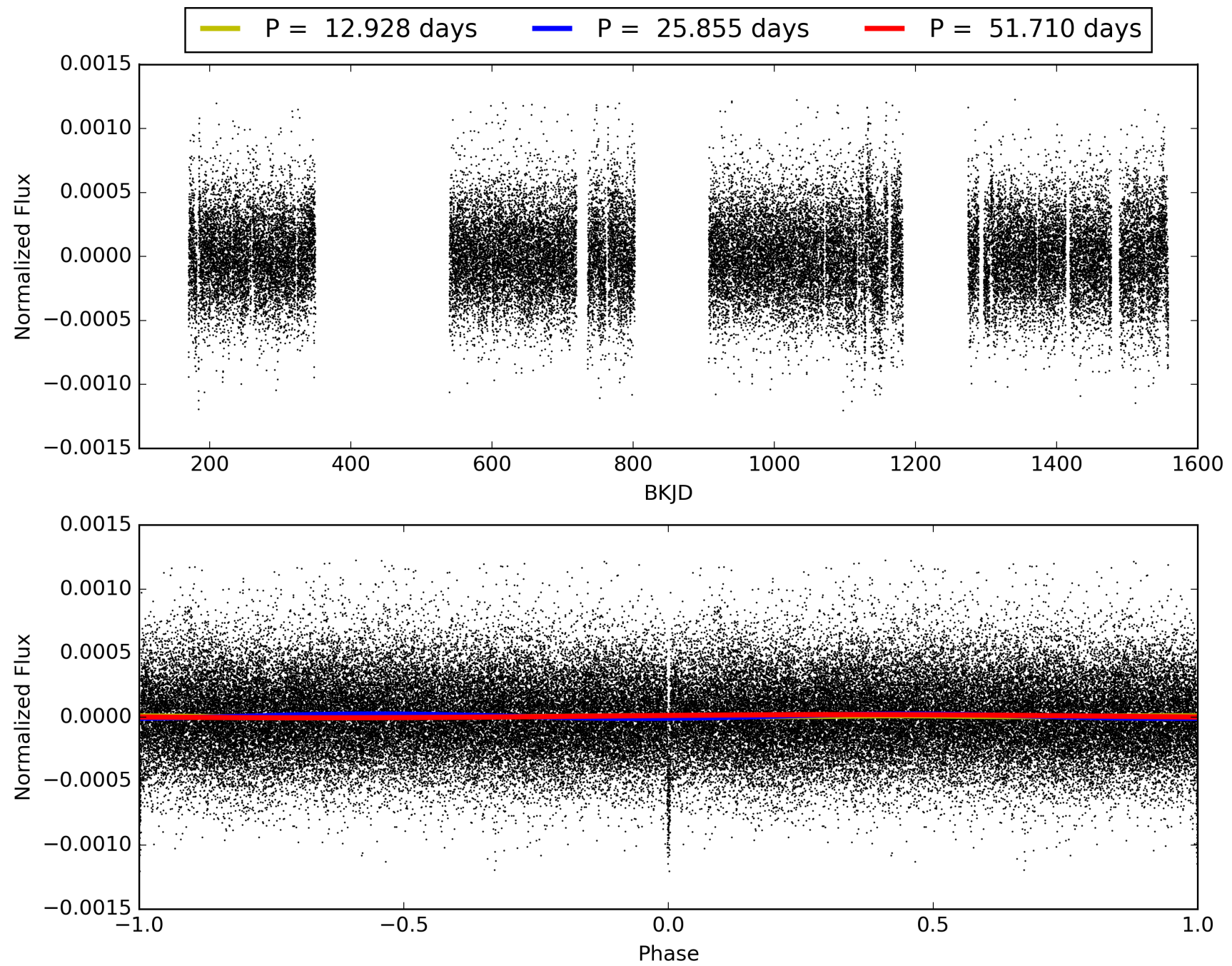
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:13:21 Z

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

TCE 007119481-01, PDC Light Curves

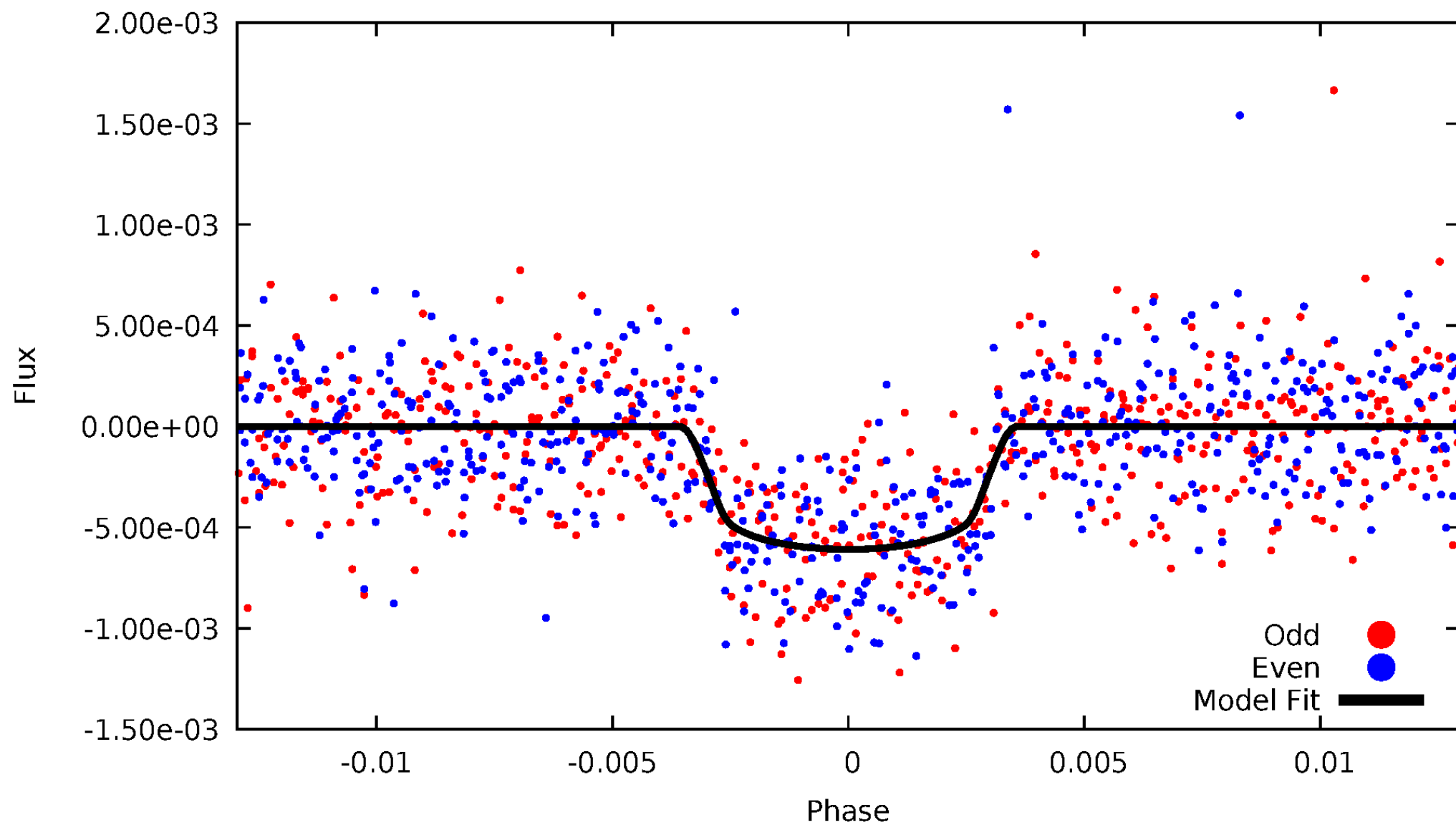


TCE 007119481-01



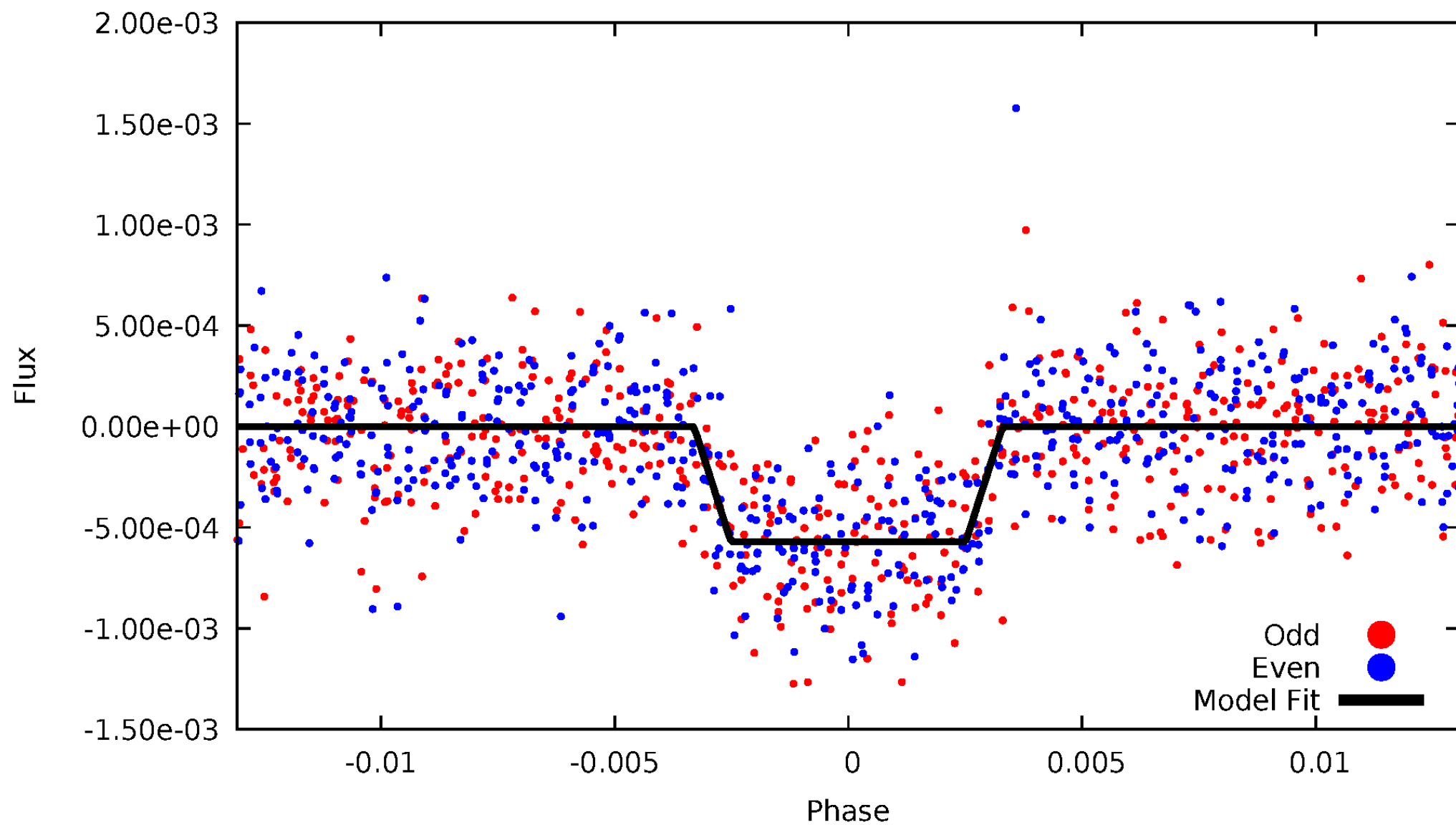
DV Odd/Even

TCE 007119481-01



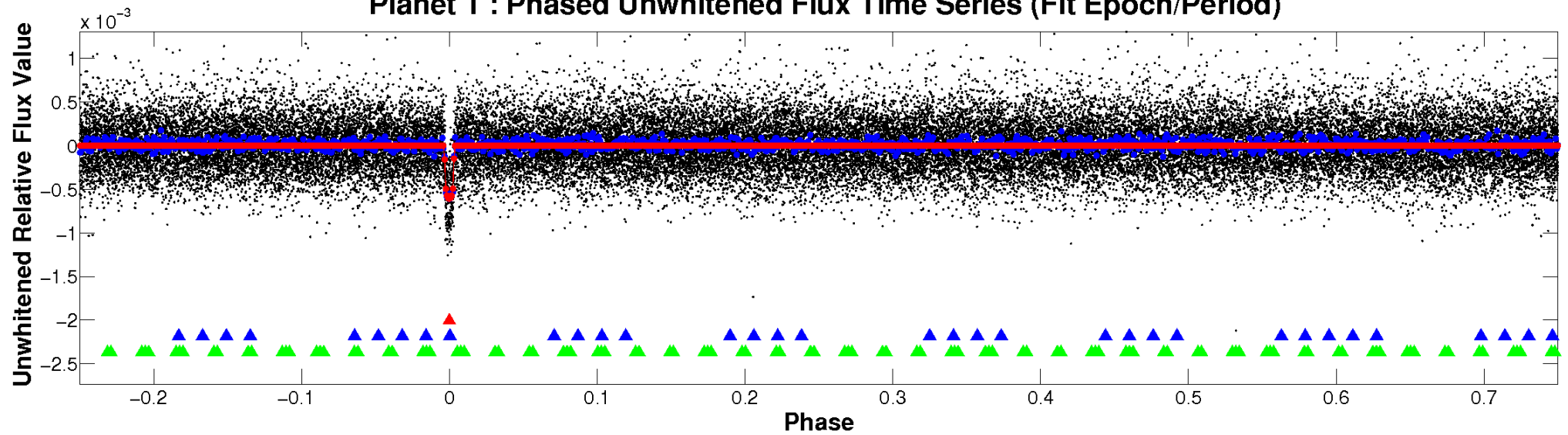
ALT Odd/Even

TCE 007119481-01

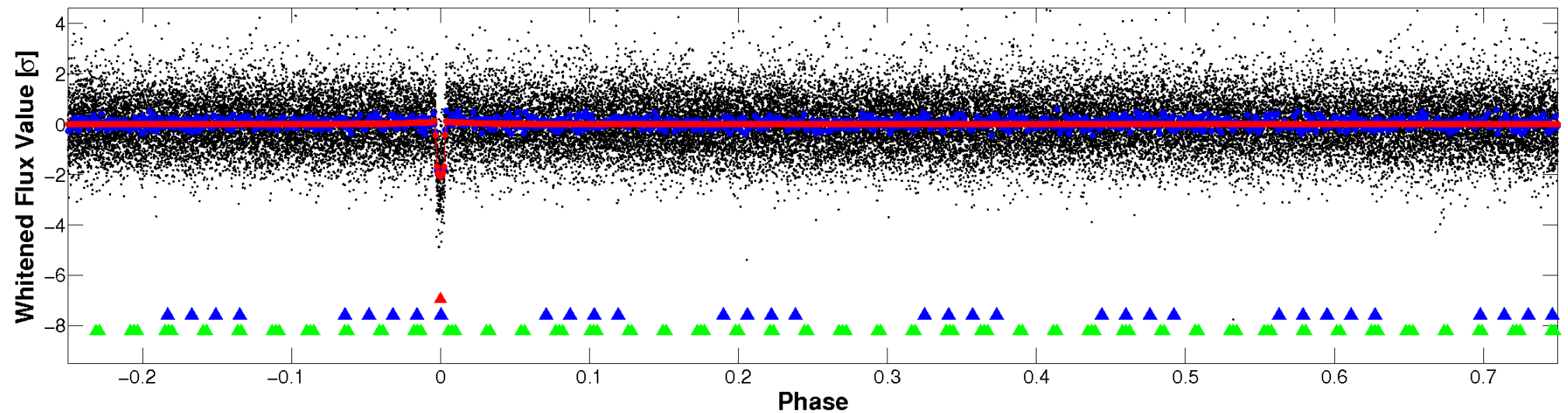


Non-Whitened Vs. Whitened Light Curve

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

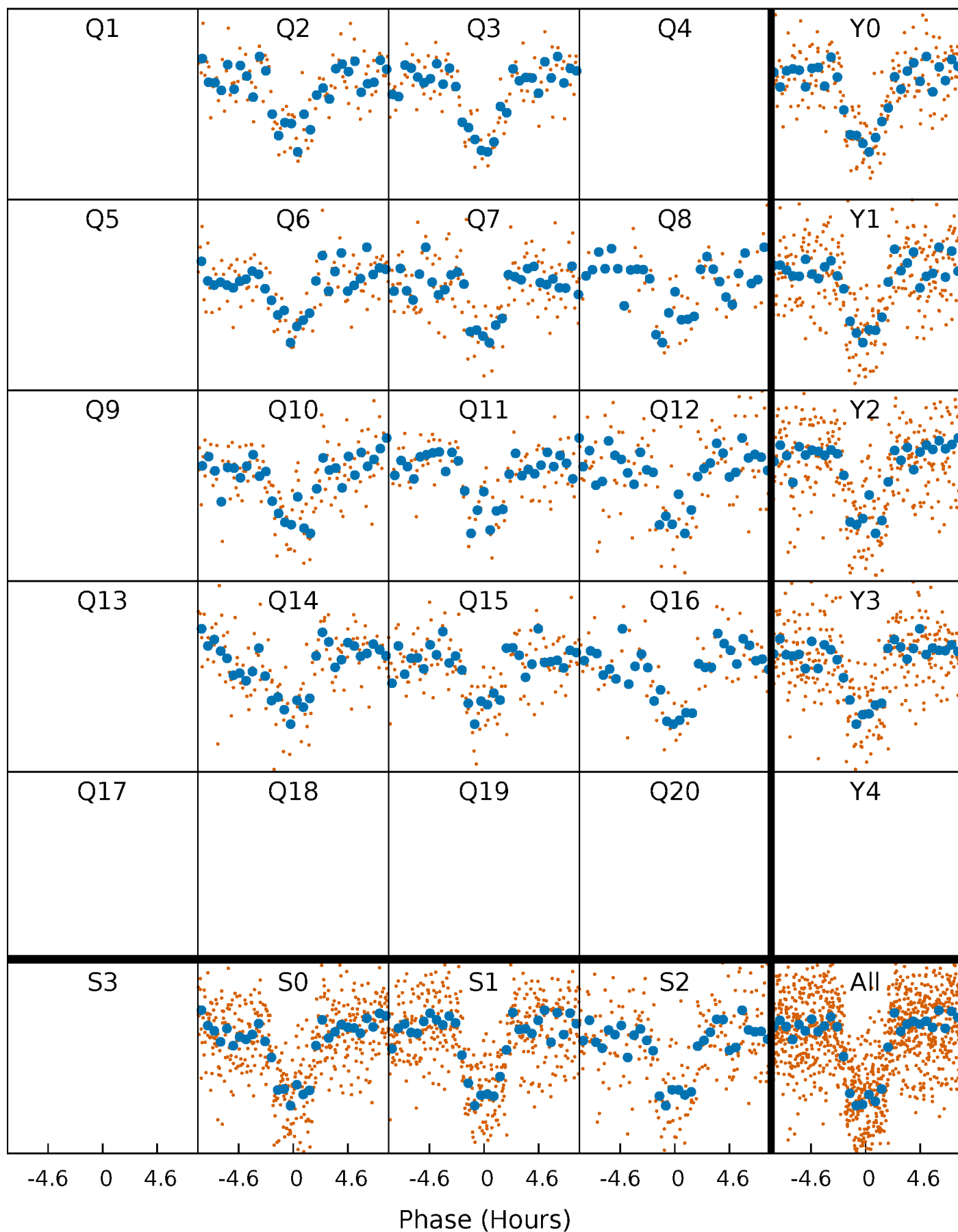


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



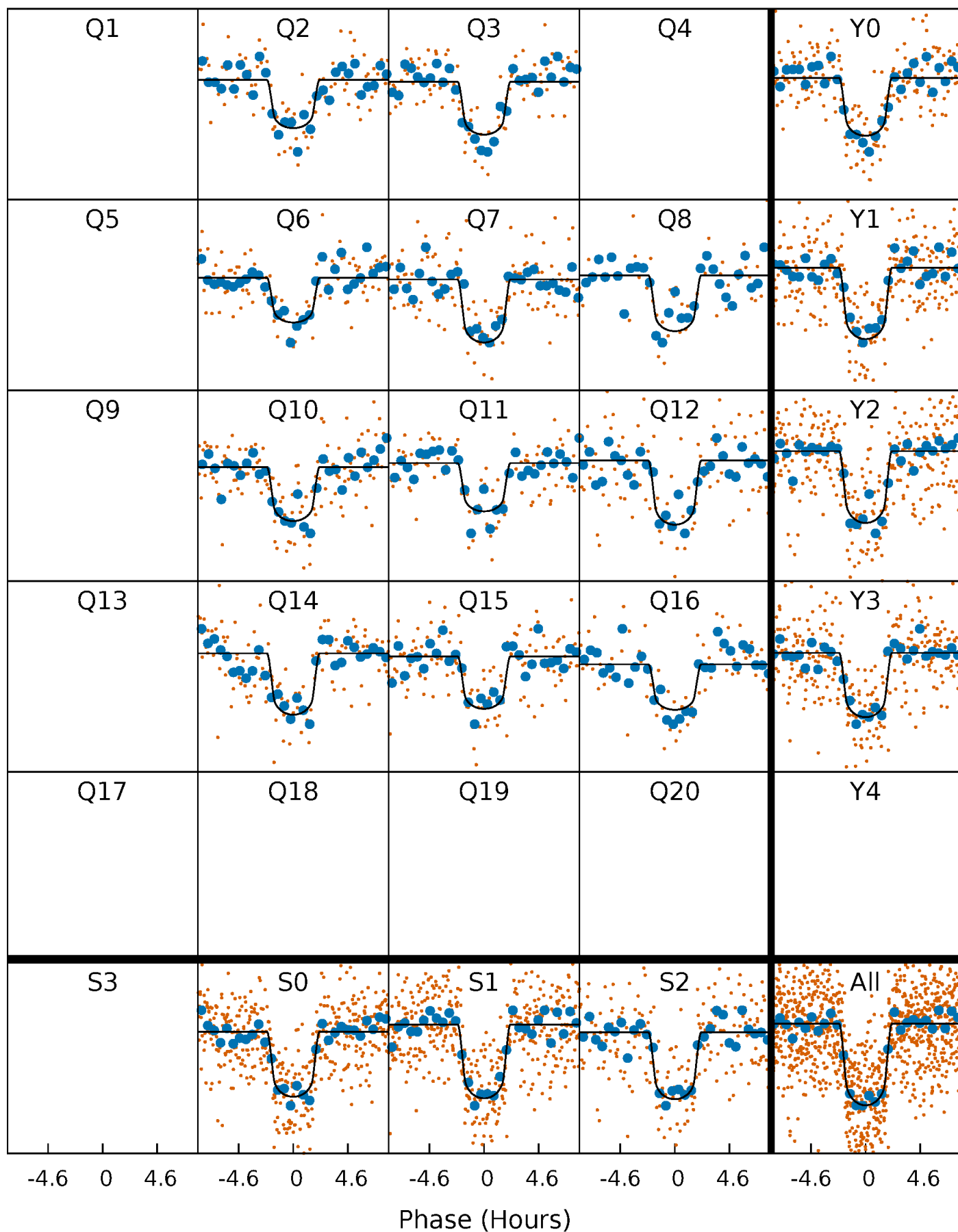
PDC Quarter-Phased Transit Curves

TCE 007119481-01 P= 25.855062 Days $T_0=140.863271$ (BKJD)



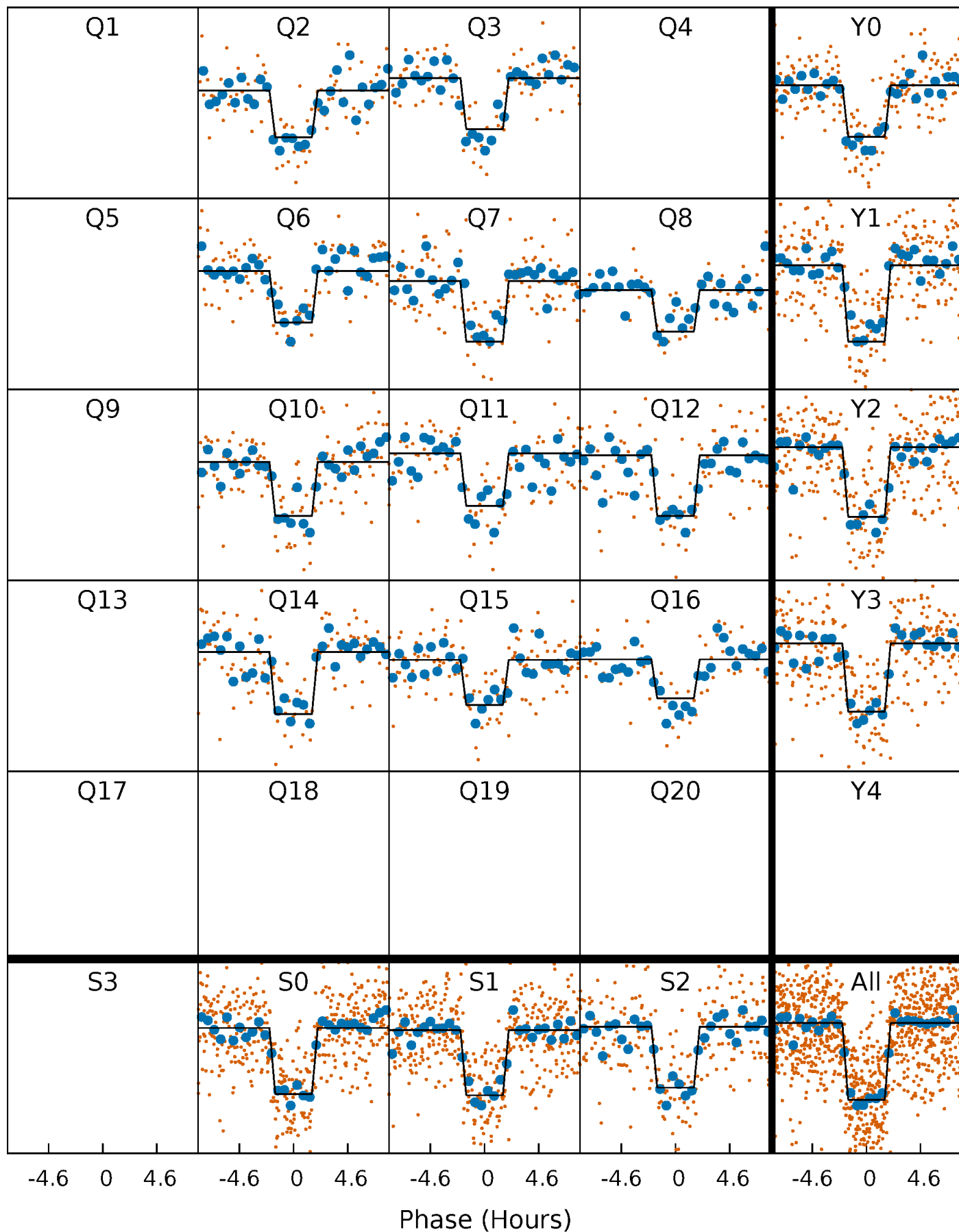
DV Quarter-Phased Transit Curves

TCE 007119481-01 P= 25.855062 Days $T_0=140.863271$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

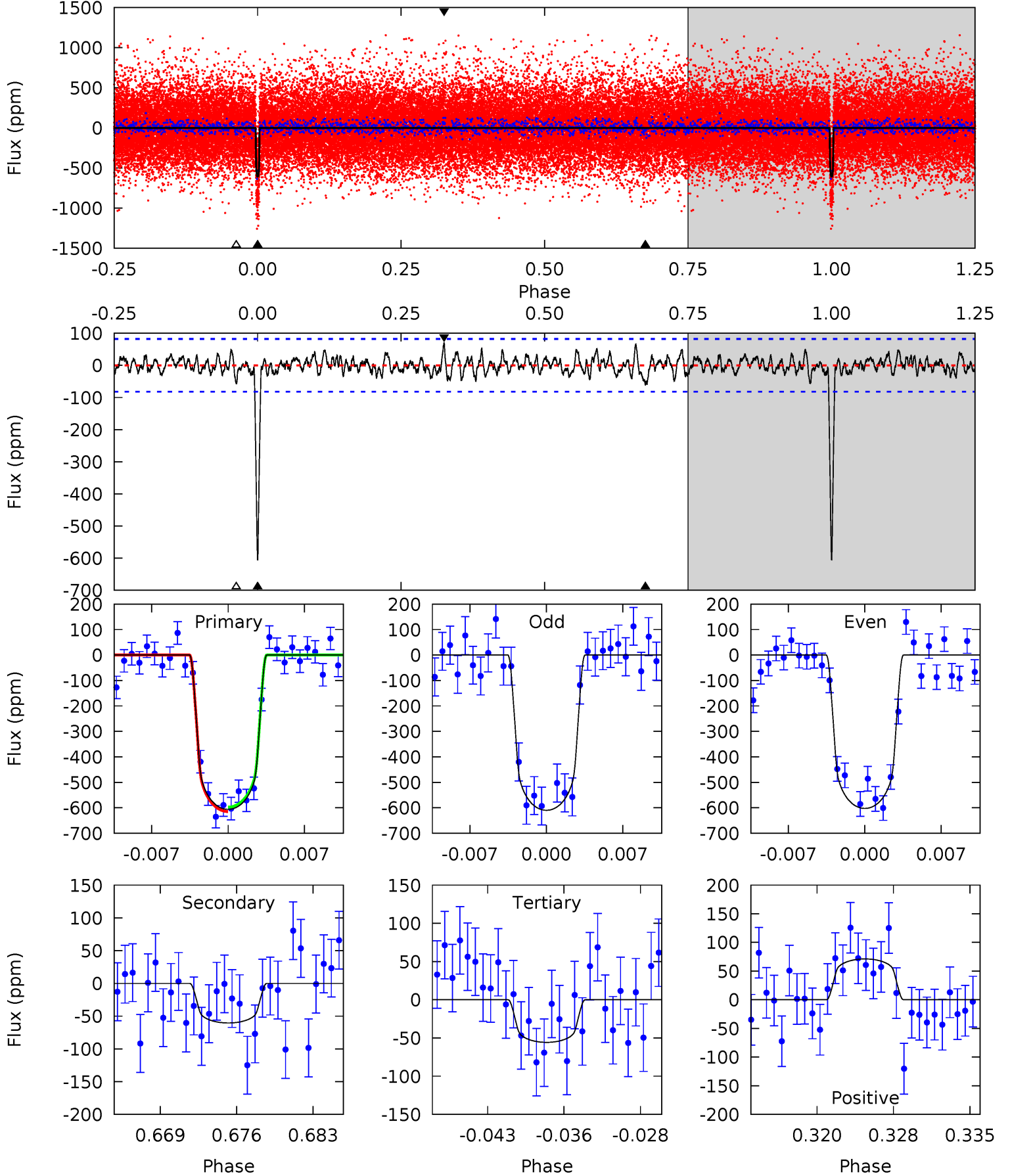
TCE 007119481-01 P= 25.854770 Days $T_0=140.872440$ (BKJD)



DV Model-Shift Uniqueness Test

007119481-01, P = 25.855062 Days, E = 140.863271 Days

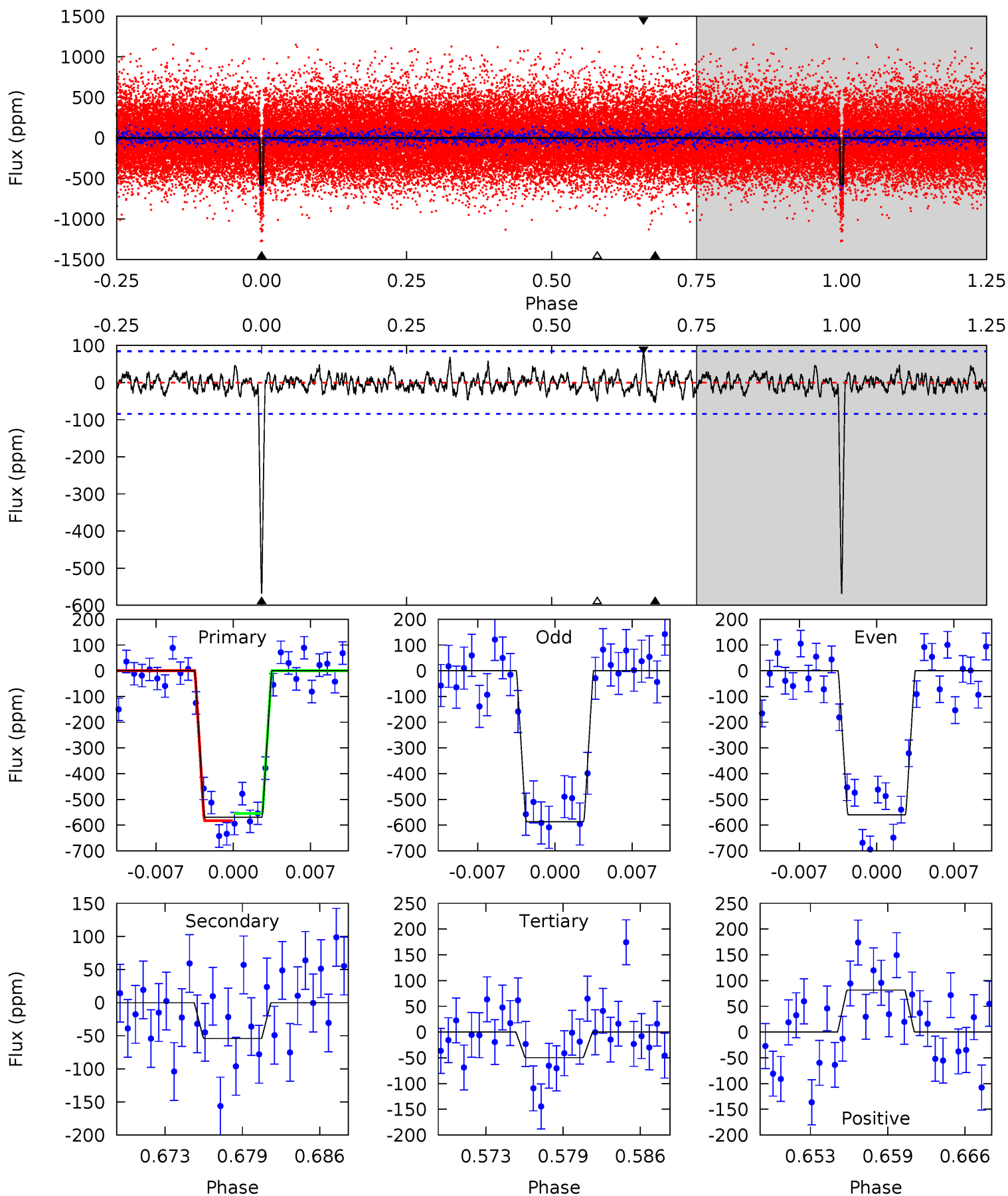
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.6	3.75	3.46	4.42	5.09	2.69	1.25	34.2	33.2	0.29	-0.67	0.23	1.01	0.11	0.54



Alt Model-Shift Uniqueness Test

007119481-01, $P = 25.854770$ Days, $E = 140.872440$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.4	3.28	3.01	4.94	5.10	2.71	1.12	31.4	29.5	0.27	-1.66	0.79	0.97	0.13	0.86



Stellar Parameters For KIC 007119481

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+182}_{-200}	$4.487^{+0.054}_{-0.216}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.302}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.459}_{-0.848}$
	+3%/-3%	+1%/-5%	+139%/-194%	+31%/-10%	+13%/-13%	+28%/-52%
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 007119481-01 / KOI 0566.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-60 ± 16	$2.75^{+0.64}_{-0.60}$	907^{+69}_{-43}	3787^{+348}_{-297}	126^{+94}_{-53}
Alt.	-54 ± 17	$2.65^{+0.71}_{-0.62}$	914^{+69}_{-47}	3781^{+370}_{-319}	122^{+93}_{-55}

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

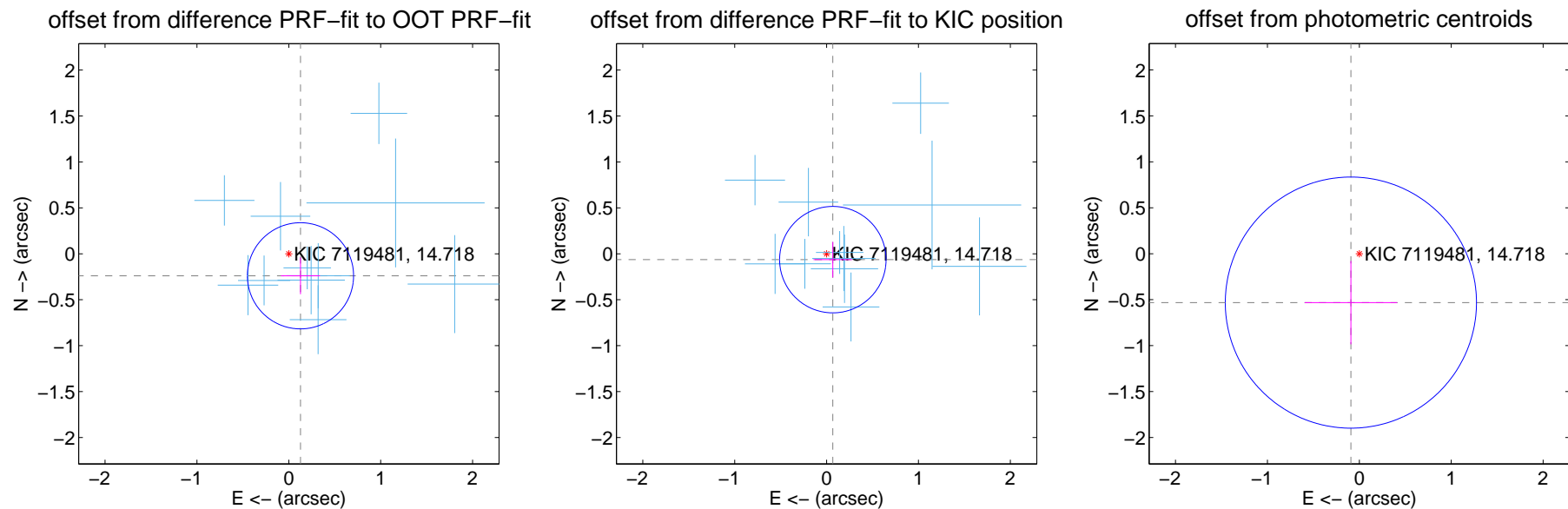
DV Centroid Data

Supplemental centroid analysis for 007119481-01. Kepler magnitude: 14.72. Transit SNR 29.19

There are 11 quarters with good PRF difference image offsets

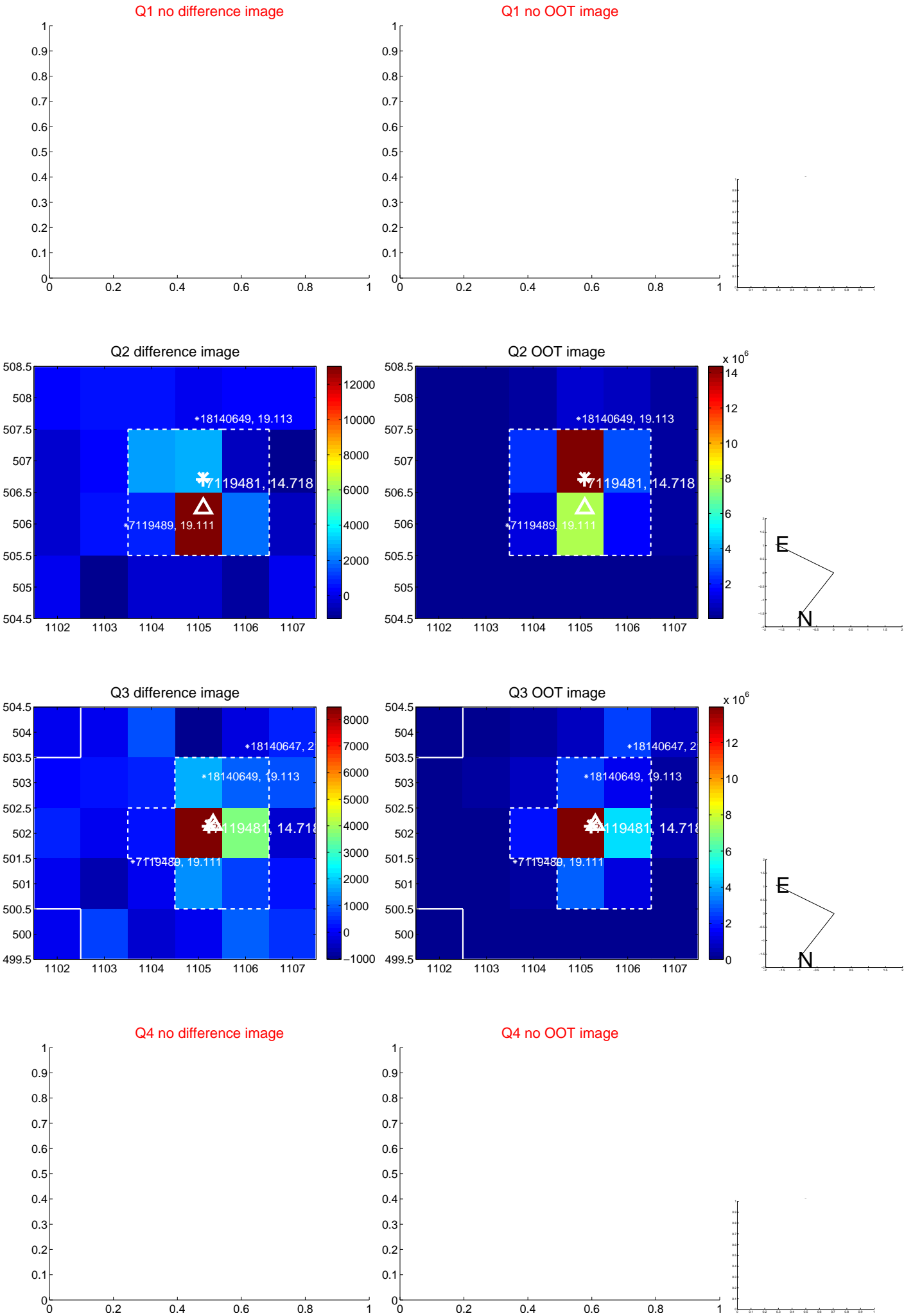
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.271 ± 0.193	1.41	-0.127 ± 0.213	-0.240 ± 0.200
PRF-fit source offset from KIC position	0.093 ± 0.193	0.48	-0.068 ± 0.210	-0.064 ± 0.194
photometric centroid source offset	0.54 ± 0.46	1.19	0.09 ± 0.50	-0.53 ± 0.45

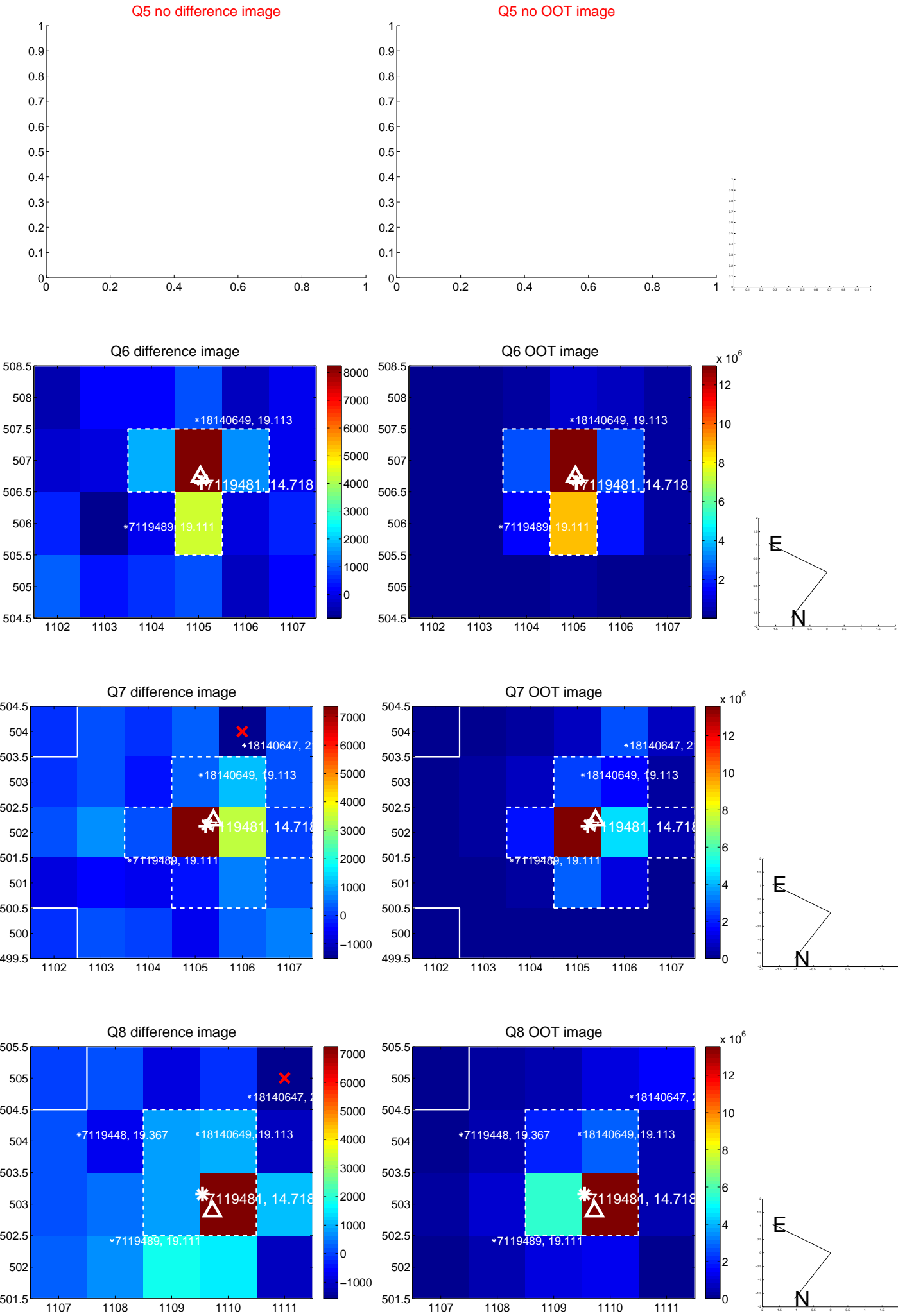


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

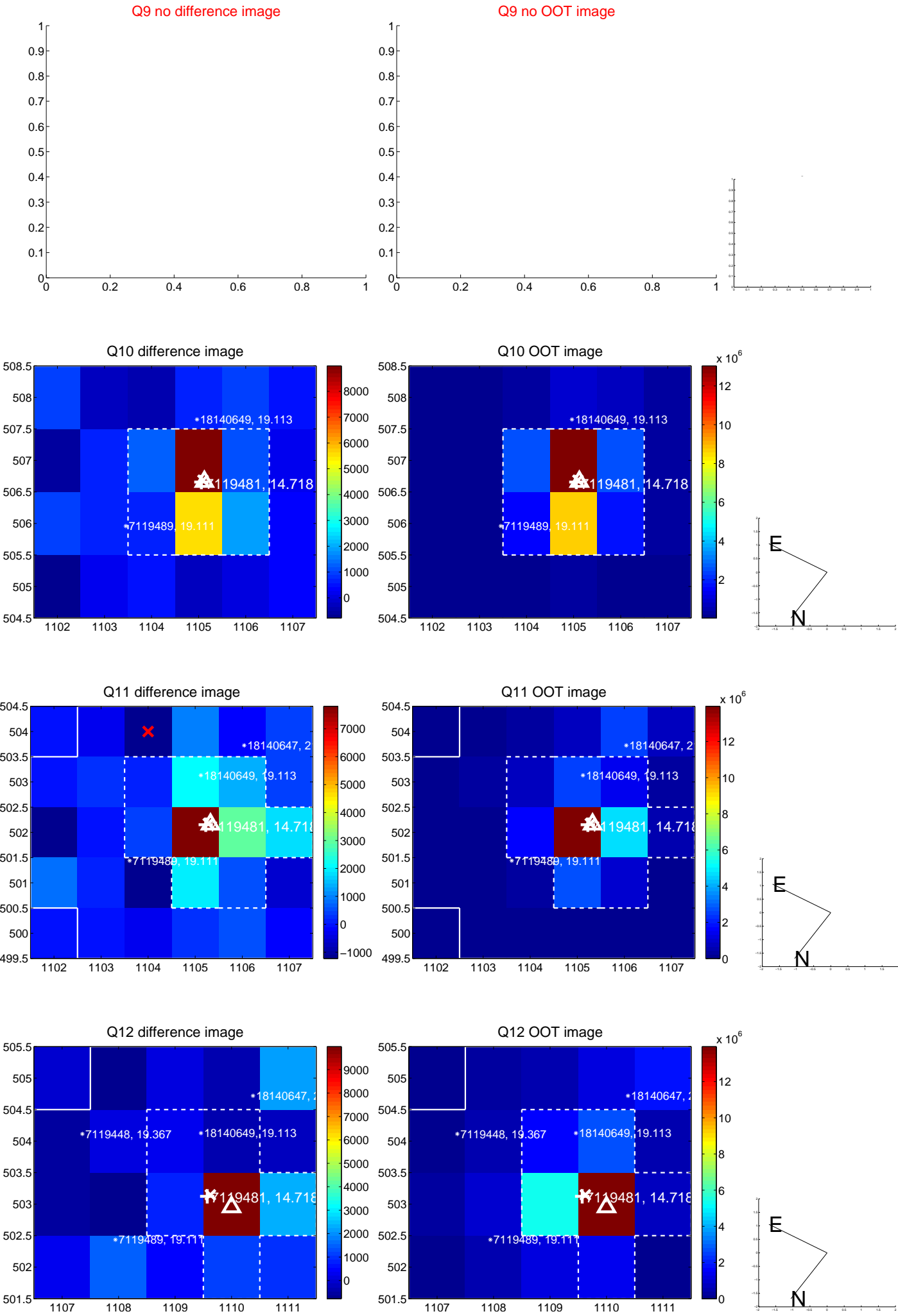
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



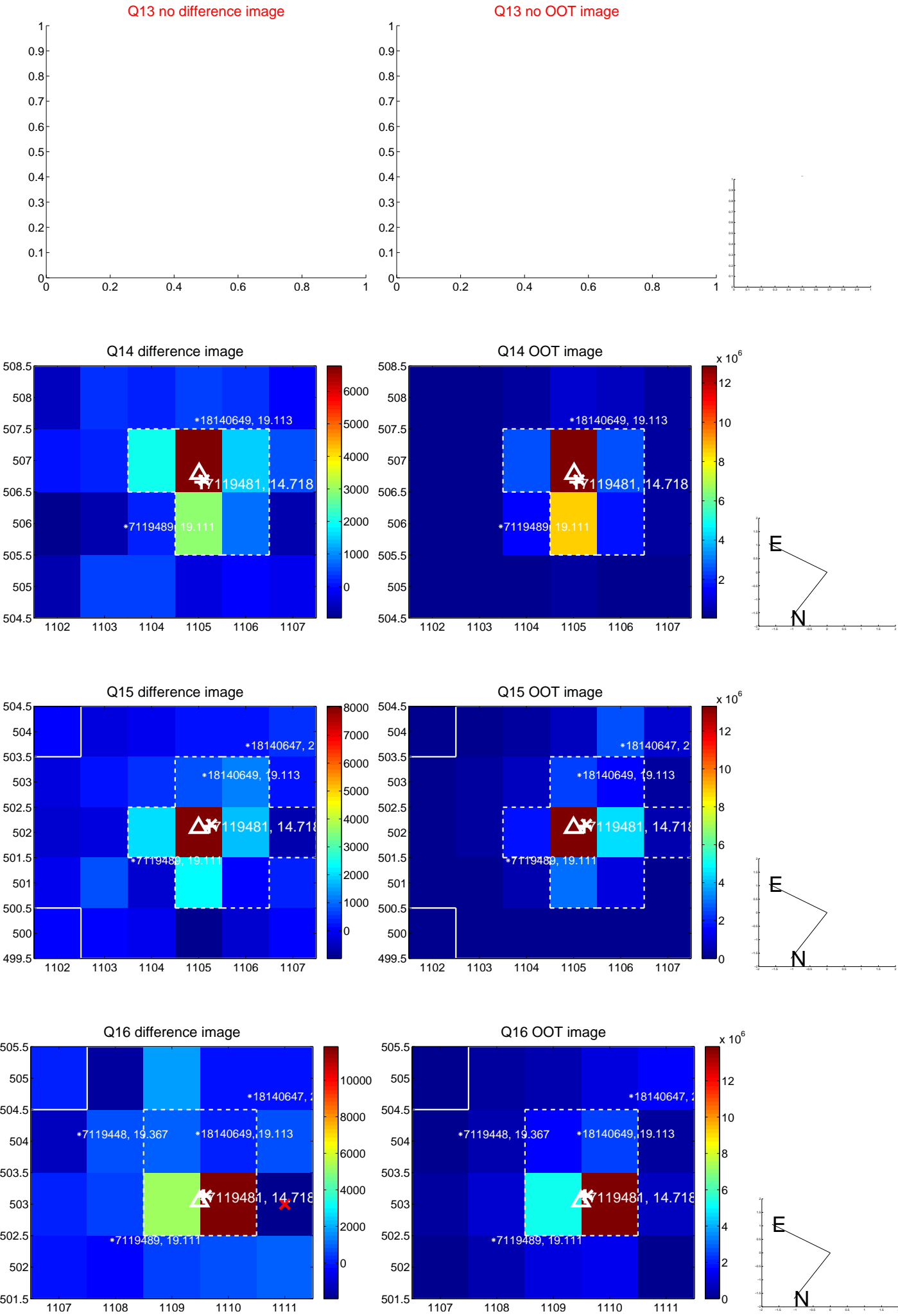
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



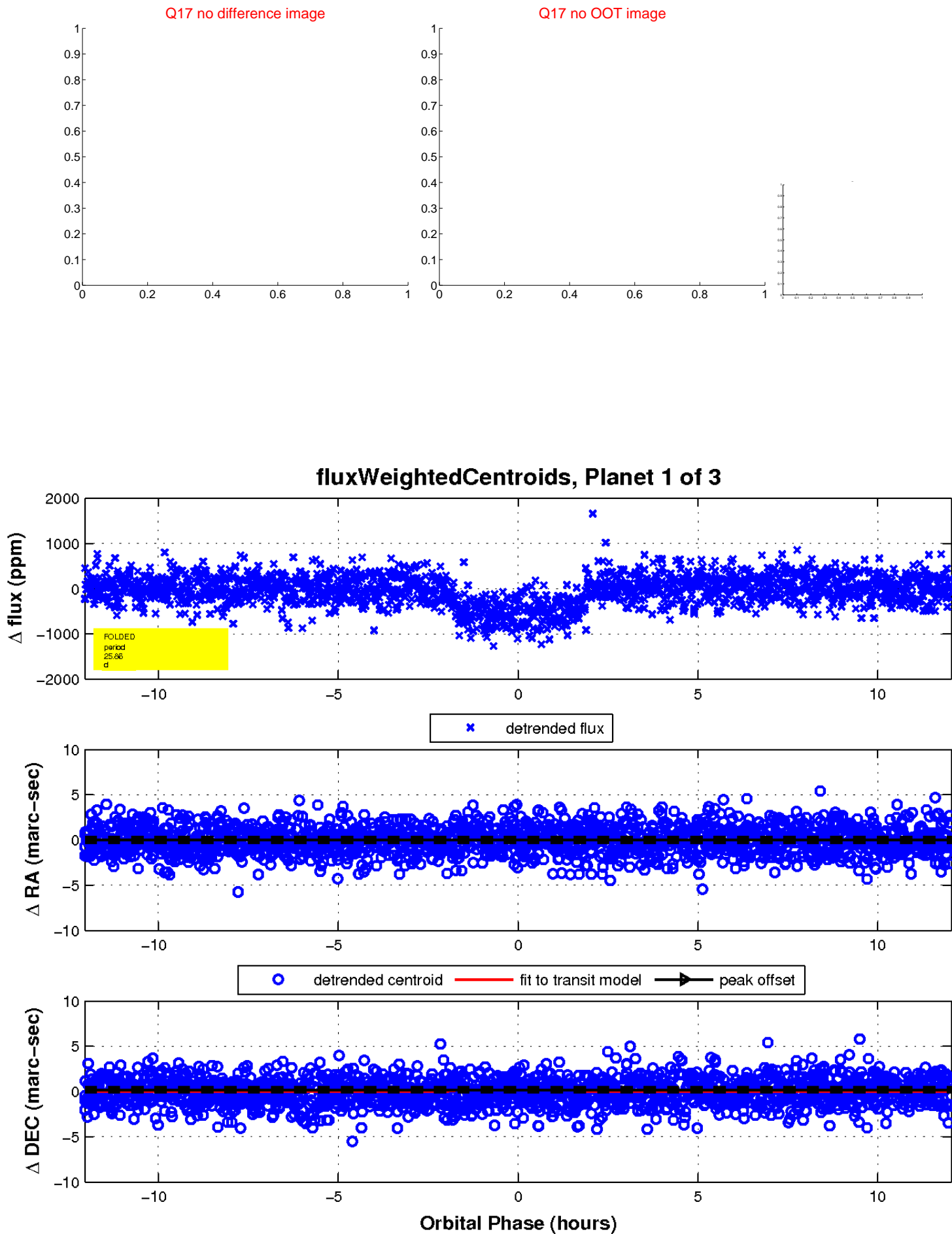
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

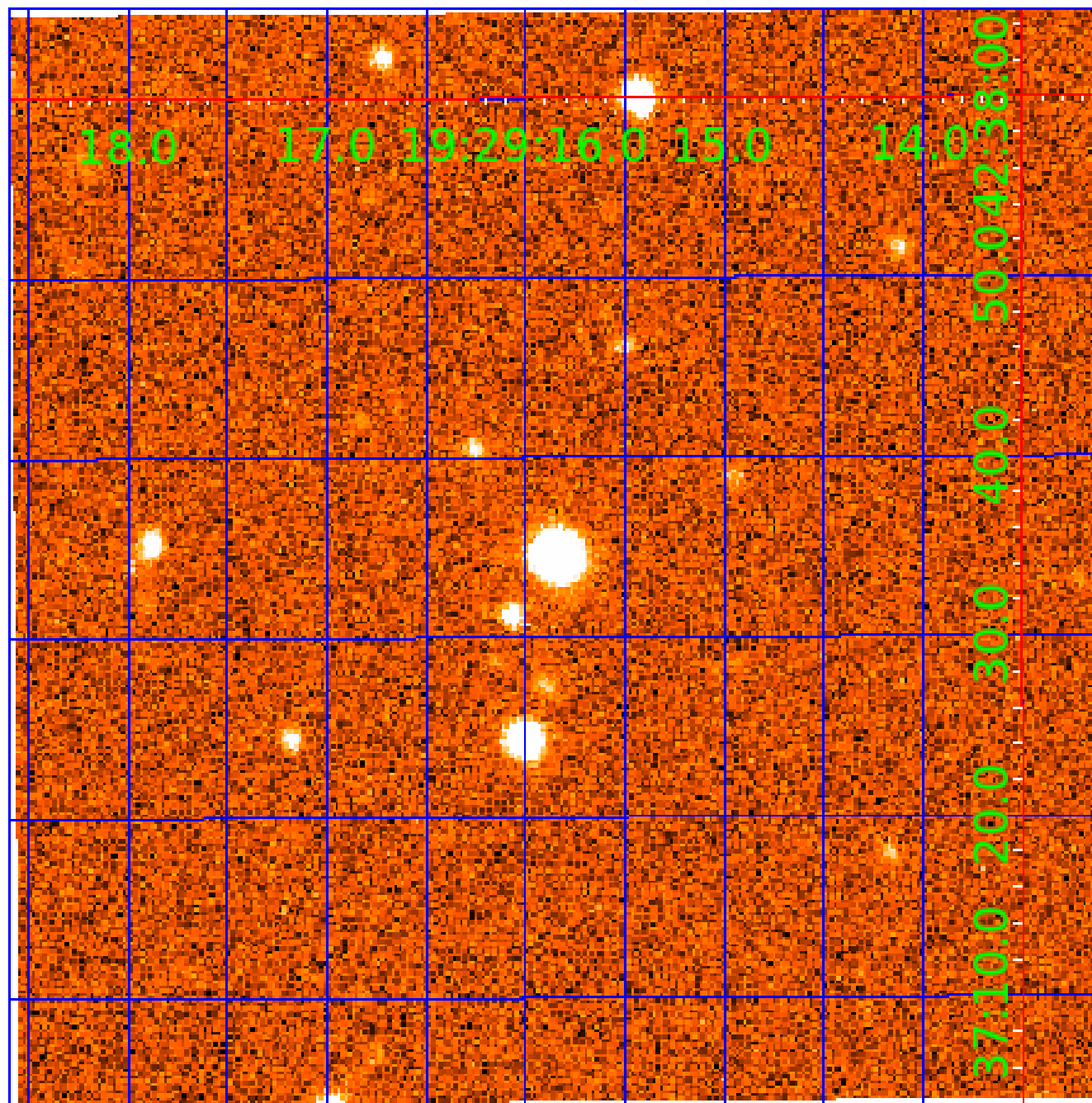


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007119481

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})
007119481-01	OBS	0566.01	25.855062	140.863271	609.0	4.017	26.6	29.2	0.96	6122	2.62	38.89
007119481-02	OBS	0566.03	42.066567	165.060847	177.4	6.936	8.4	8.9	0.96	6122	1.46	20.32
007119481-03	OBS	0566.02	14.157251	135.606175	117.4	3.833	8.3	7.7	0.96	6122	1.25	86.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007119481-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT
007119481-02	OBS	PC	0.96	0	0	0	0	NO_COMMENT
007119481-03	OBS	PC	0.70	0	0	0	0	NO_COMMENT

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 007119481-02

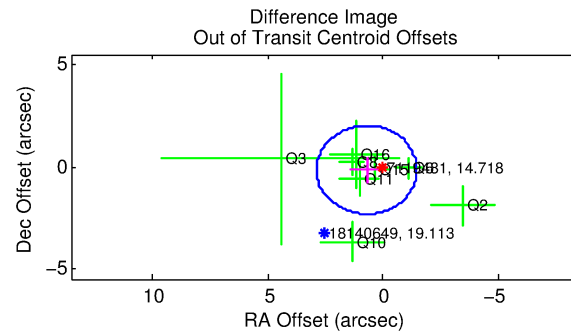
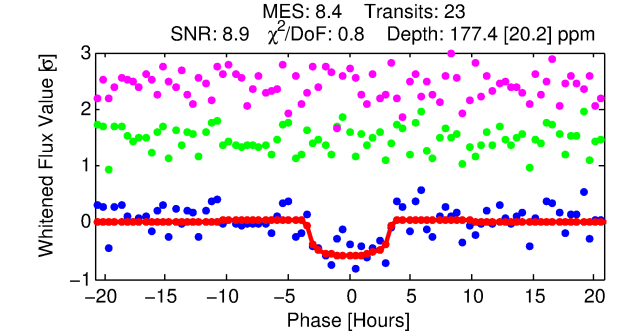
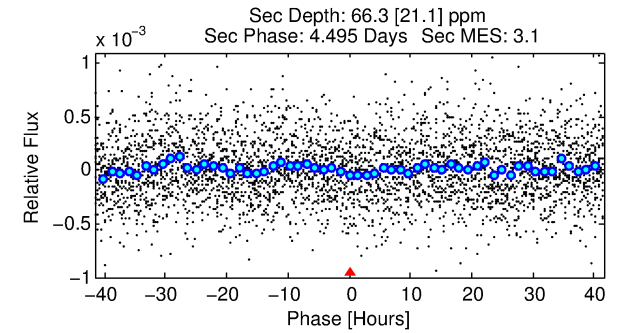
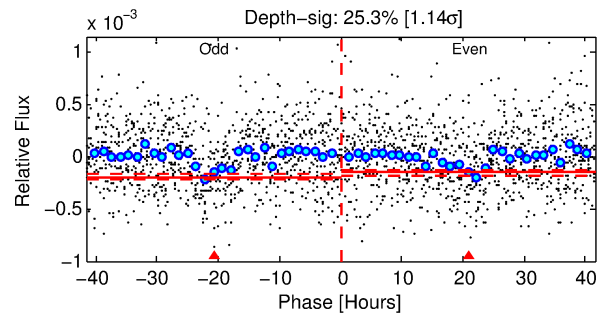
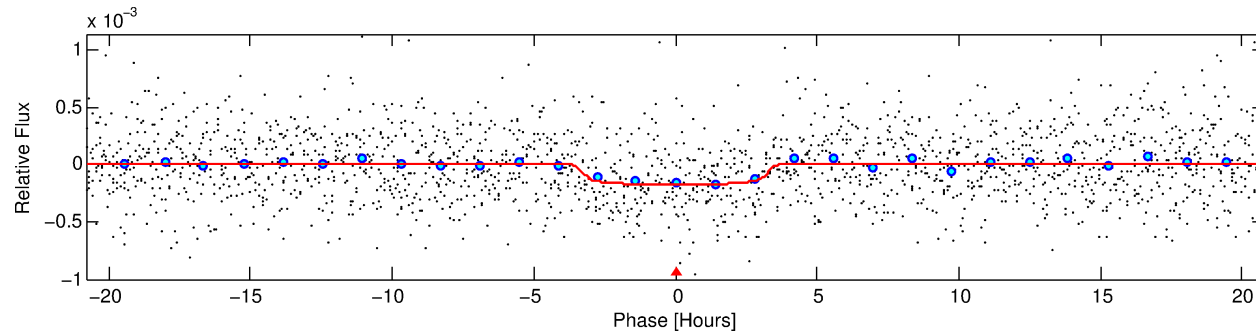
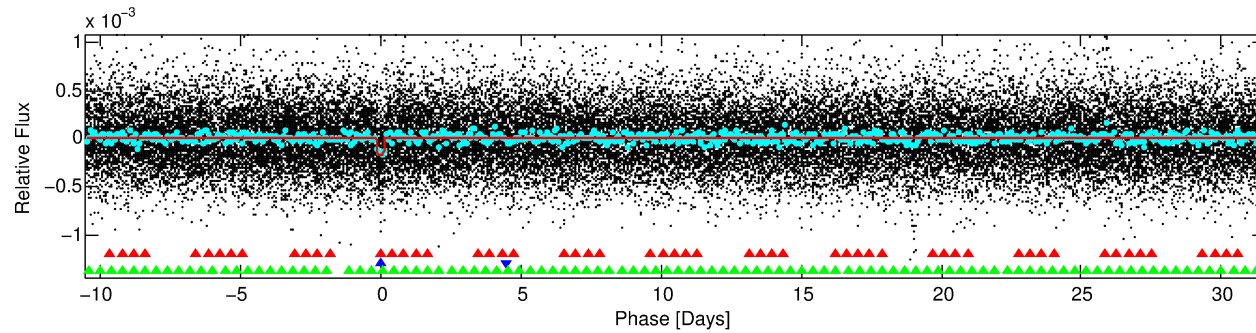
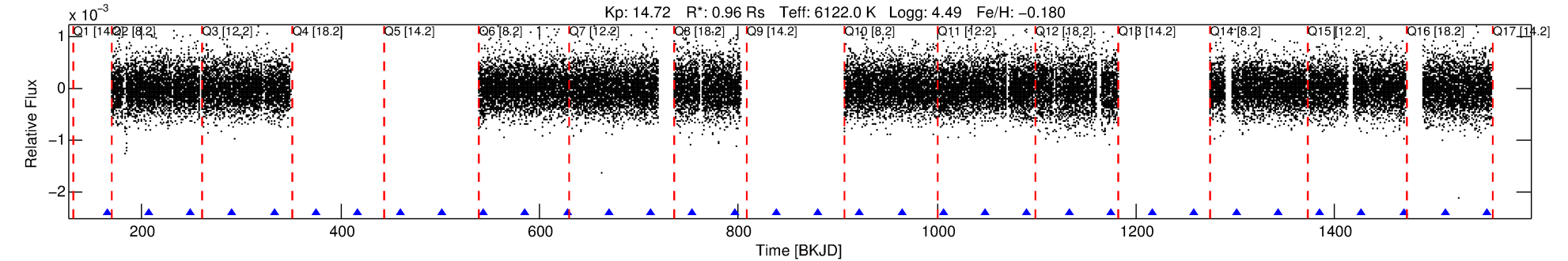
No Significant Match Found

DV One-Page Summary

KIC: 7119481 Candidate: 2 of 3 Period: 42.067 d

KOI: K00566 Corr: No Ephemeris Match

Kp: 14.72 R*: 0.96 Rs Teff: 6122.0 K Logg: 4.49 Fe/H: -0.180



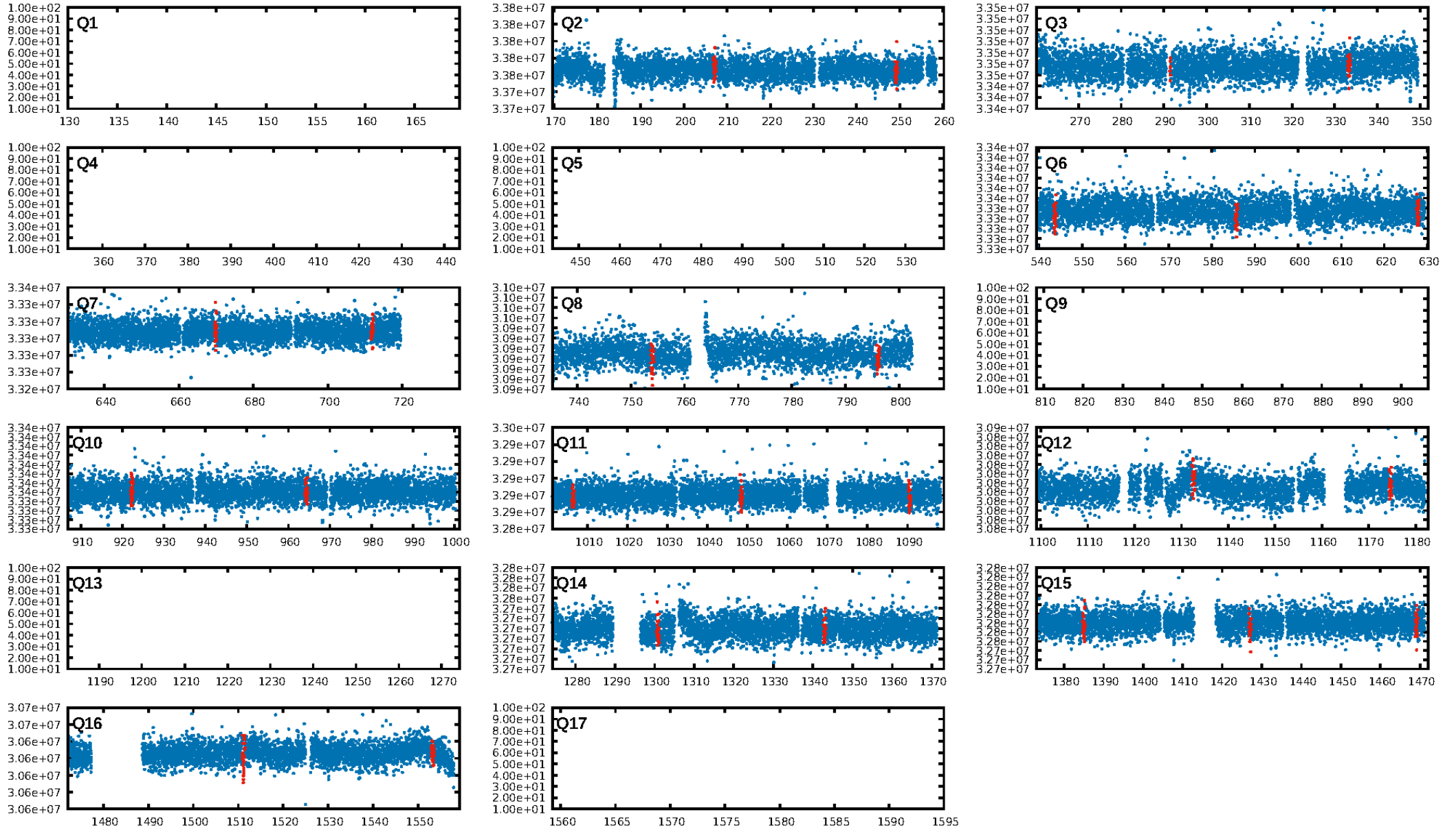
DV Fit Results:

Period = 42.06657 [0.00077] d
Epoch = 165.0608 [0.0157] BKJD
Rp/R* = 0.0139 [0.0063]
a/R* = 25.09 [58.19]
b = 0.86 [0.73]
Seff = 20.32 [8.39]
Teq = 541 [56] K
Rp = 1.46 [0.80] Re
a = 0.2399 [0.0640] AU
Ag = 980.40 [1011.15] [0.97σ]
Teff = 4684 [1128] K [3.67σ]

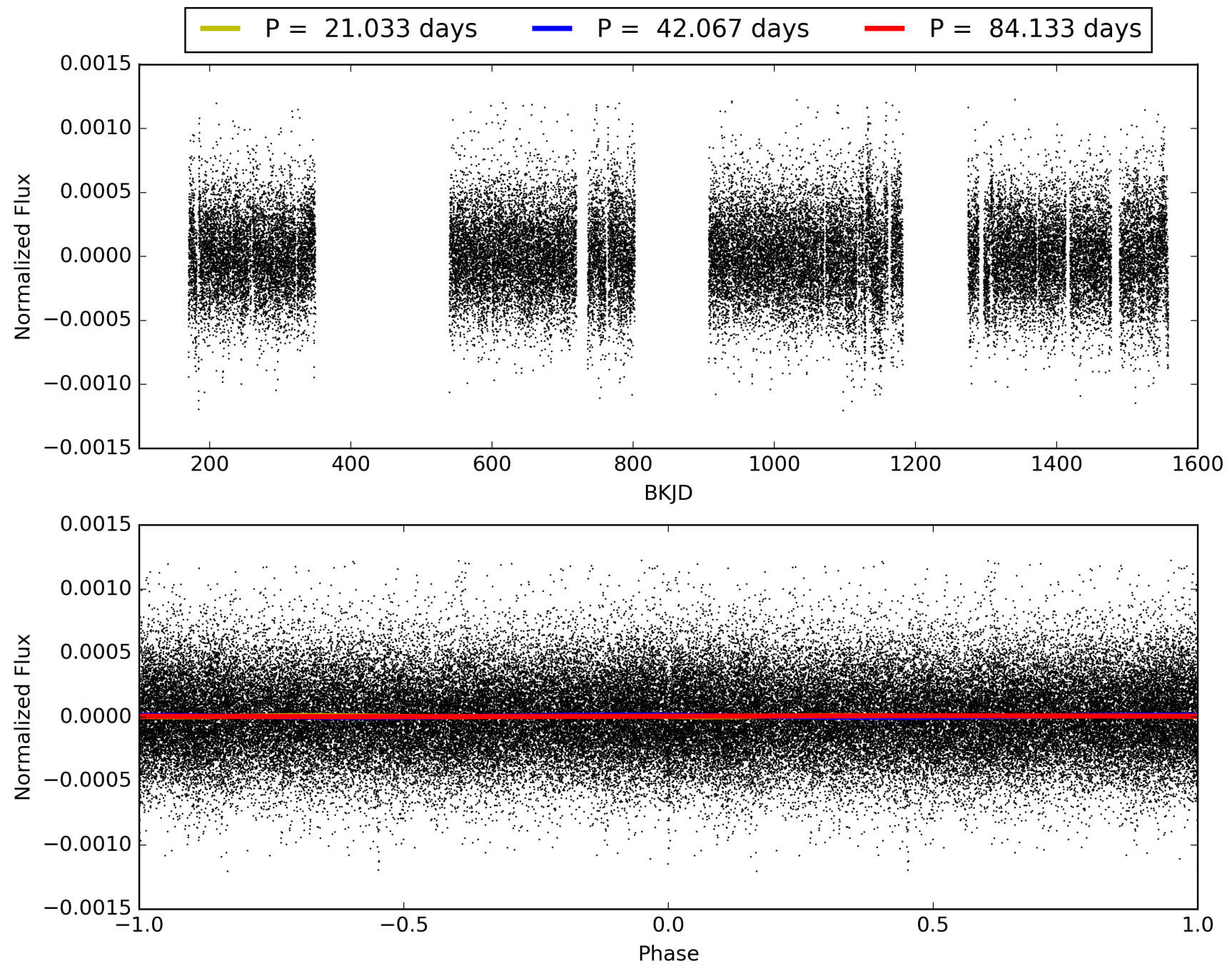
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [48.54σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 64.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.74e-17
RollingBand-fgt: 1.00 [23/23]
GhostDiagnostic-chr: -4.075
Centroid-sig: 26.9%
Centroid-so: 1.607 arcsec [1.13σ]
OotOffset-rm: 0.736 arcsec [1.02σ]
KicOffset-rm: 0.823 arcsec [1.13σ]
OotOffset-st: 3/3/2/0 [8]
KicOffset-st: 3/3/2/0 [8]
DiffImageQuality-fgm: 0.50 [4/8]
DiffImageOverlap-fno: 0.91 [10/11]

TCE 007119481-02, PDC Light Curves

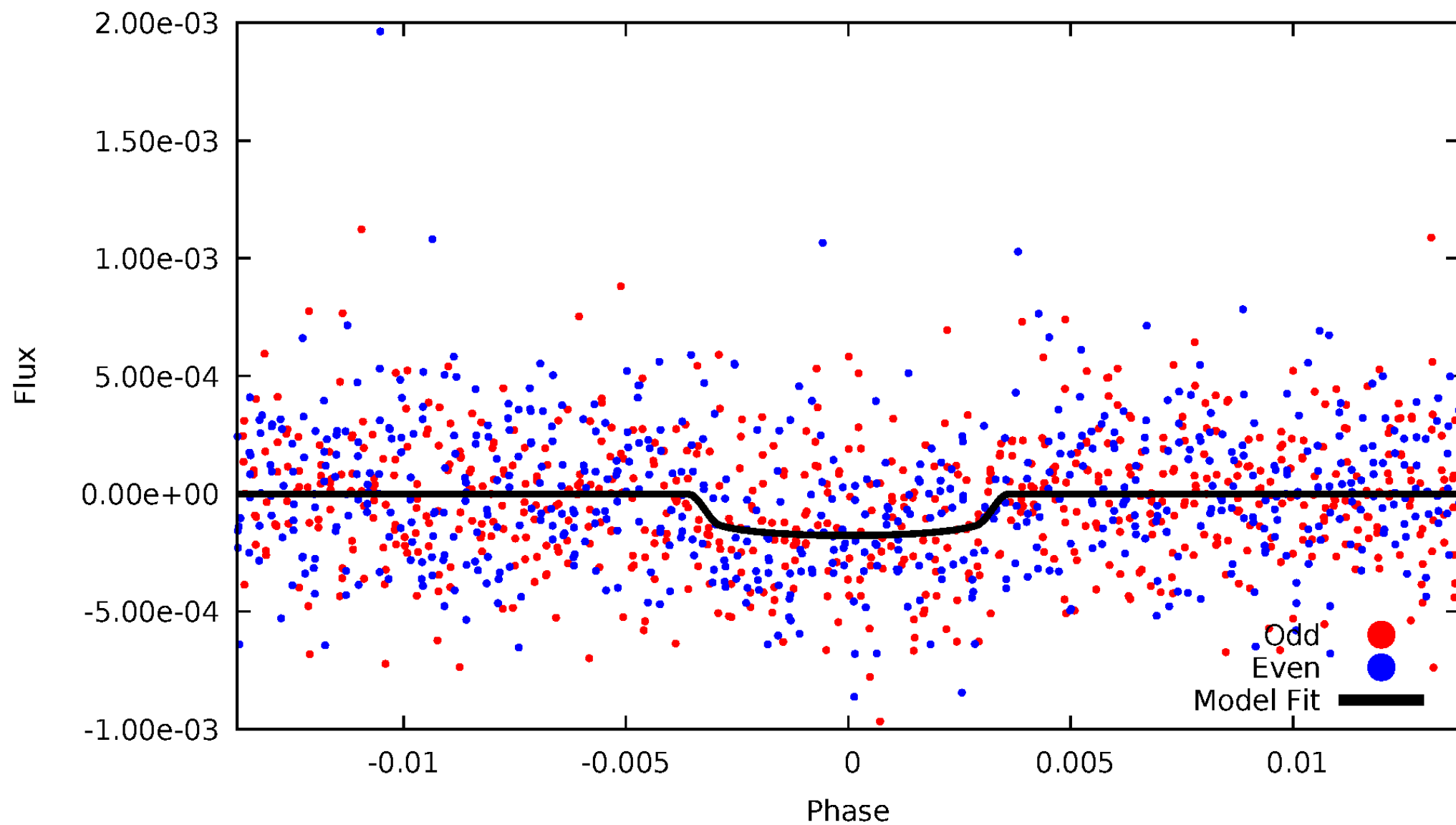


TCE 007119481-02



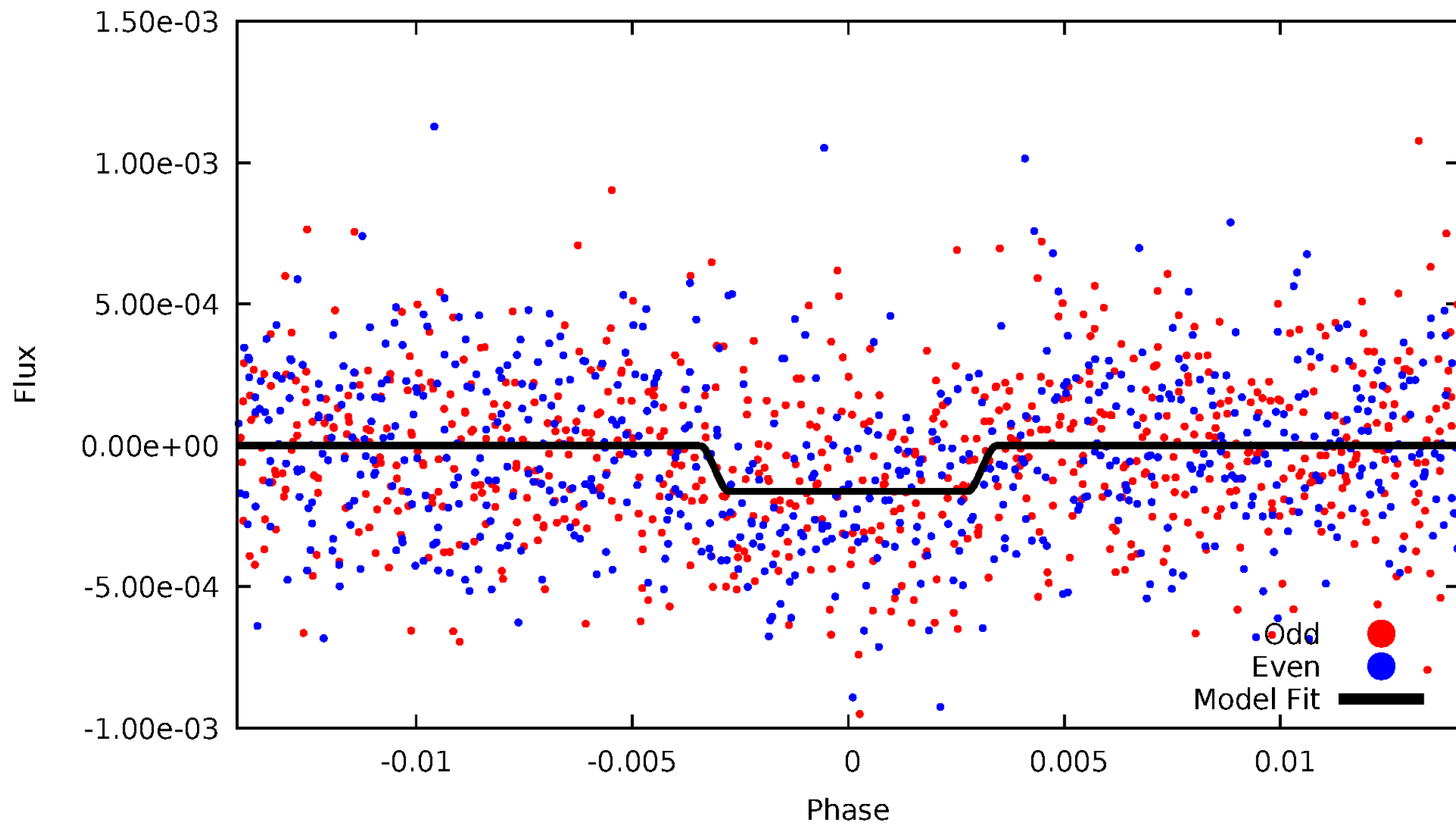
DV Odd/Even

TCE 007119481-02



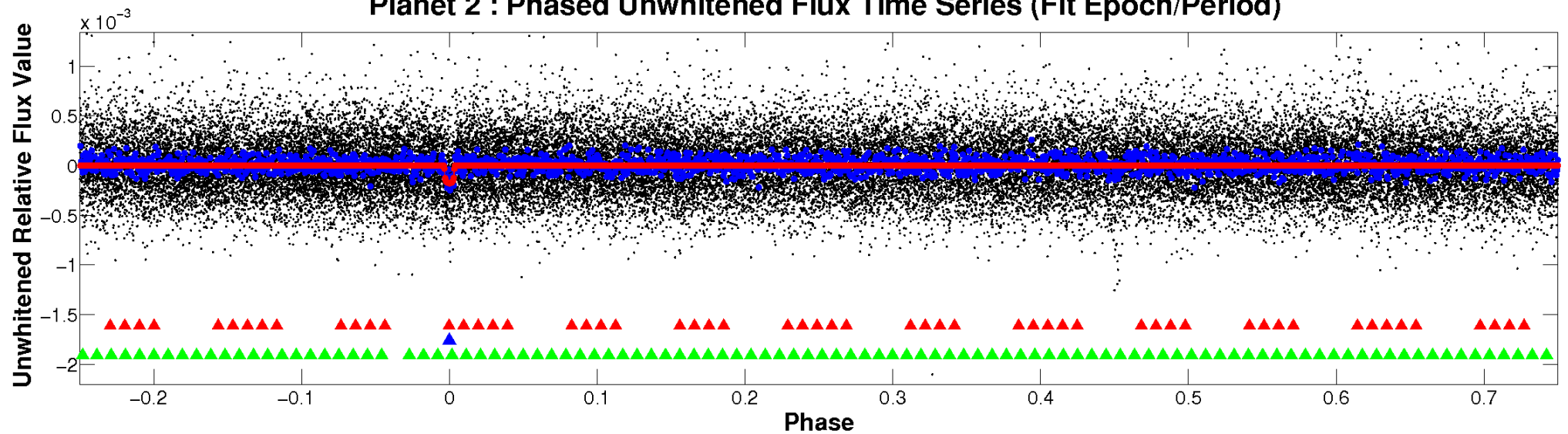
ALT Odd/Even

TCE 007119481-02

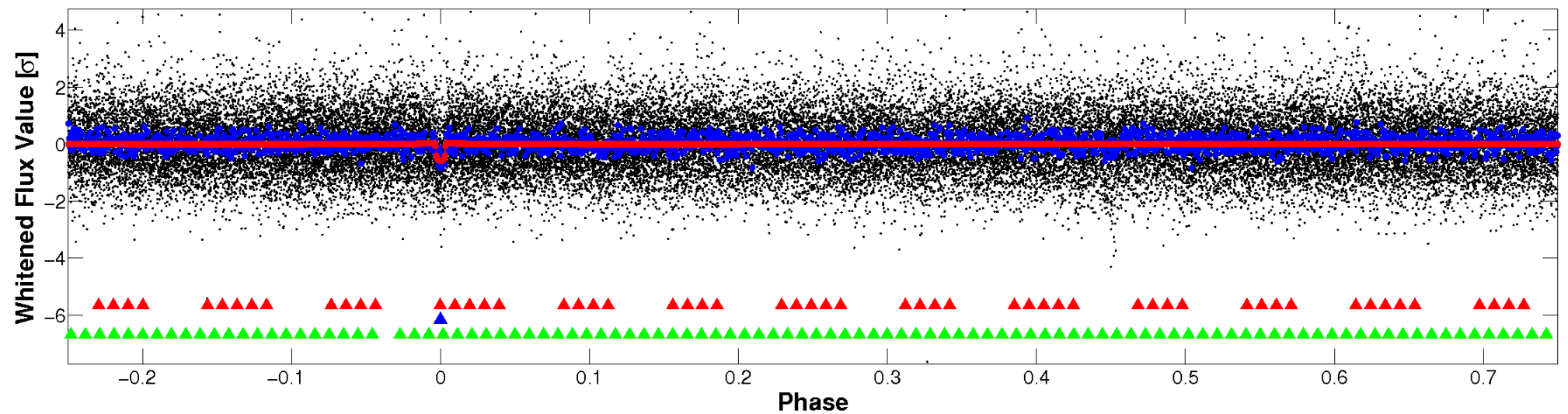


Non-Whitened Vs. Whitened Light Curve

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

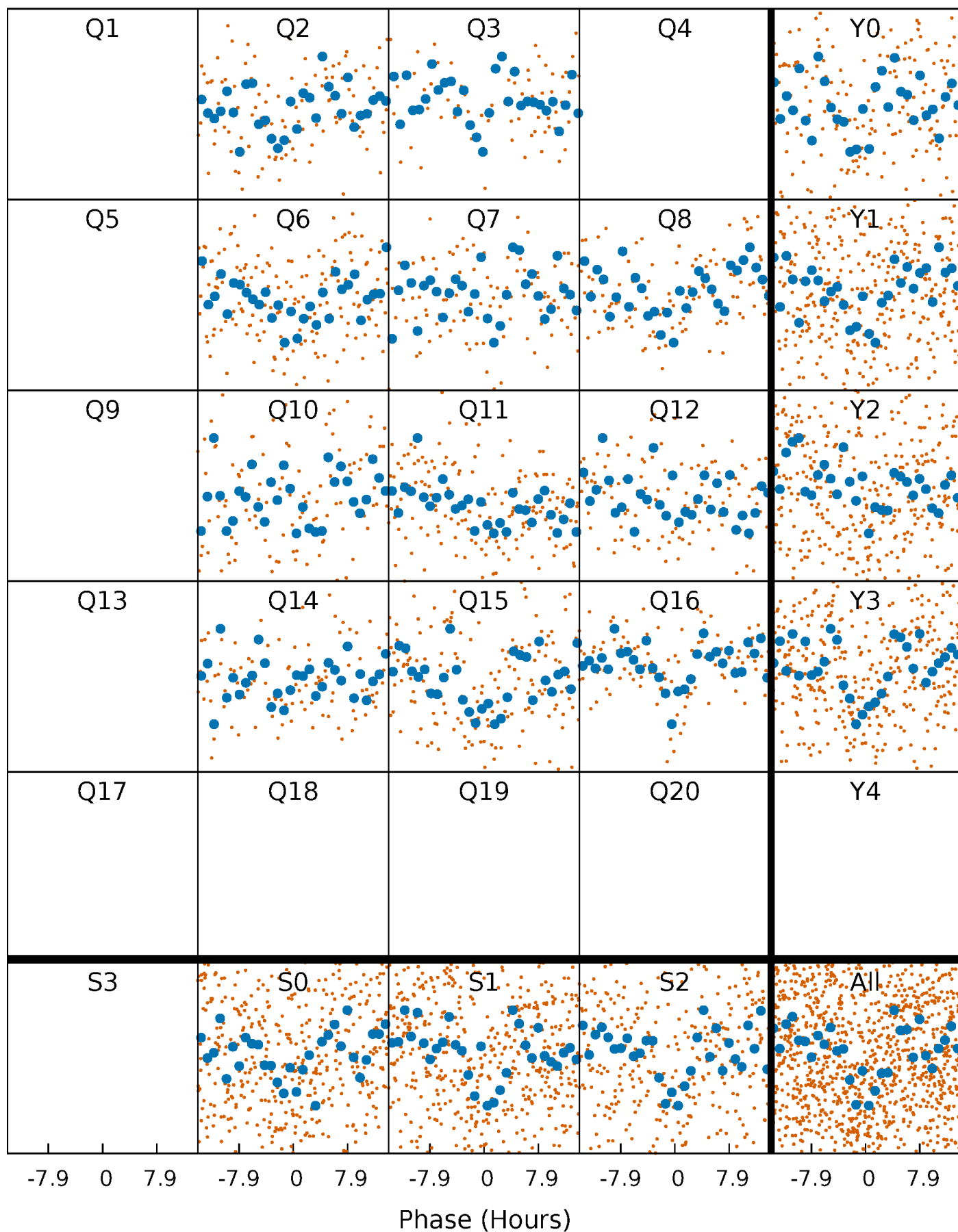


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



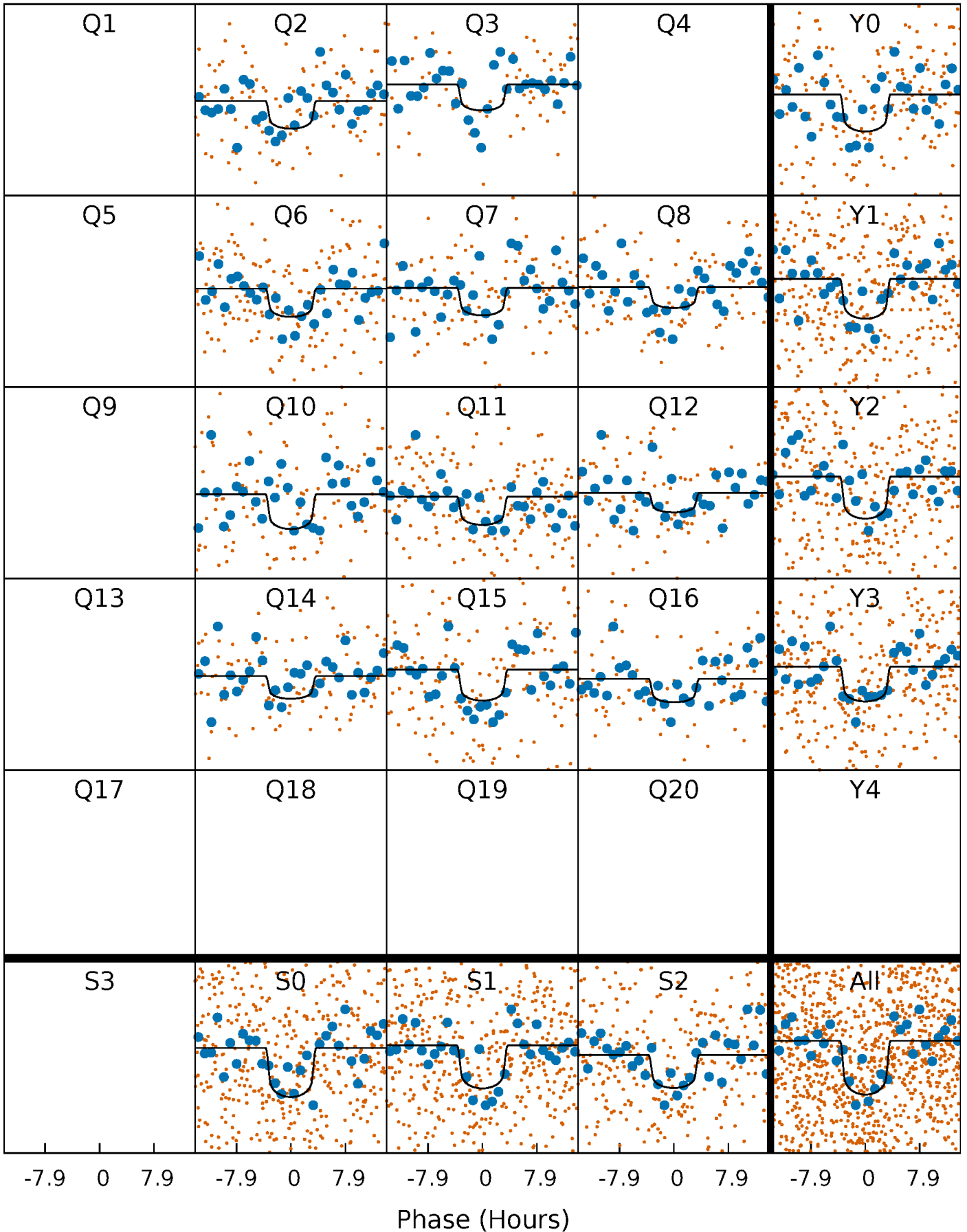
PDC Quarter-Phased Transit Curves

TCE 007119481-02 P= 42.066567 Days $T_0=165.060847$ (BKJD)



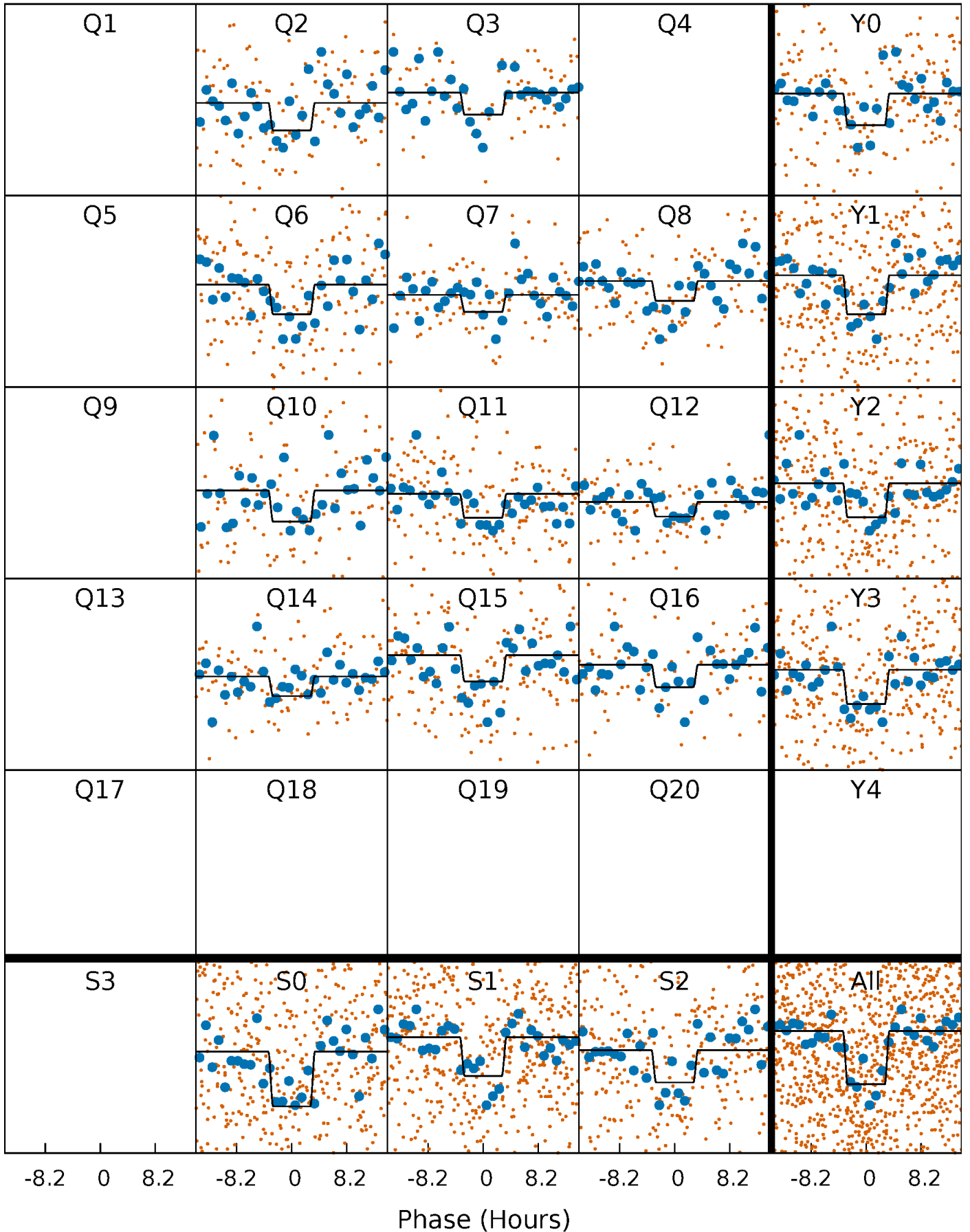
DV Quarter-Phased Transit Curves

TCE 007119481-02 P= 42.066567 Days $T_0=165.060847$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

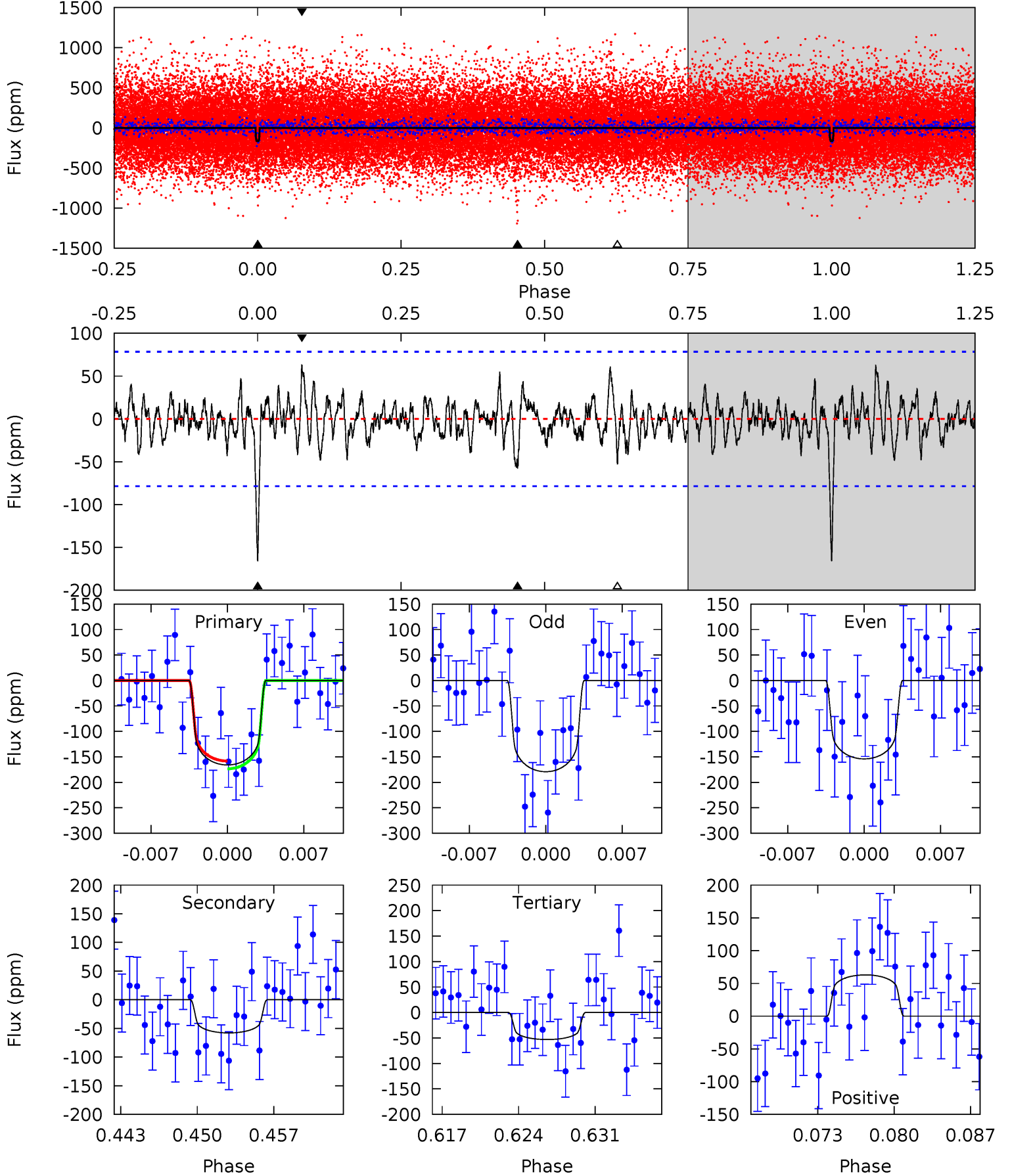
TCE 007119481-02 P= 42.067610 Days $T_0=165.047479$ (BKJD)



DV Model-Shift Uniqueness Test

007119481-02, $P = 42.066567$ Days, $E = 165.060847$ Days

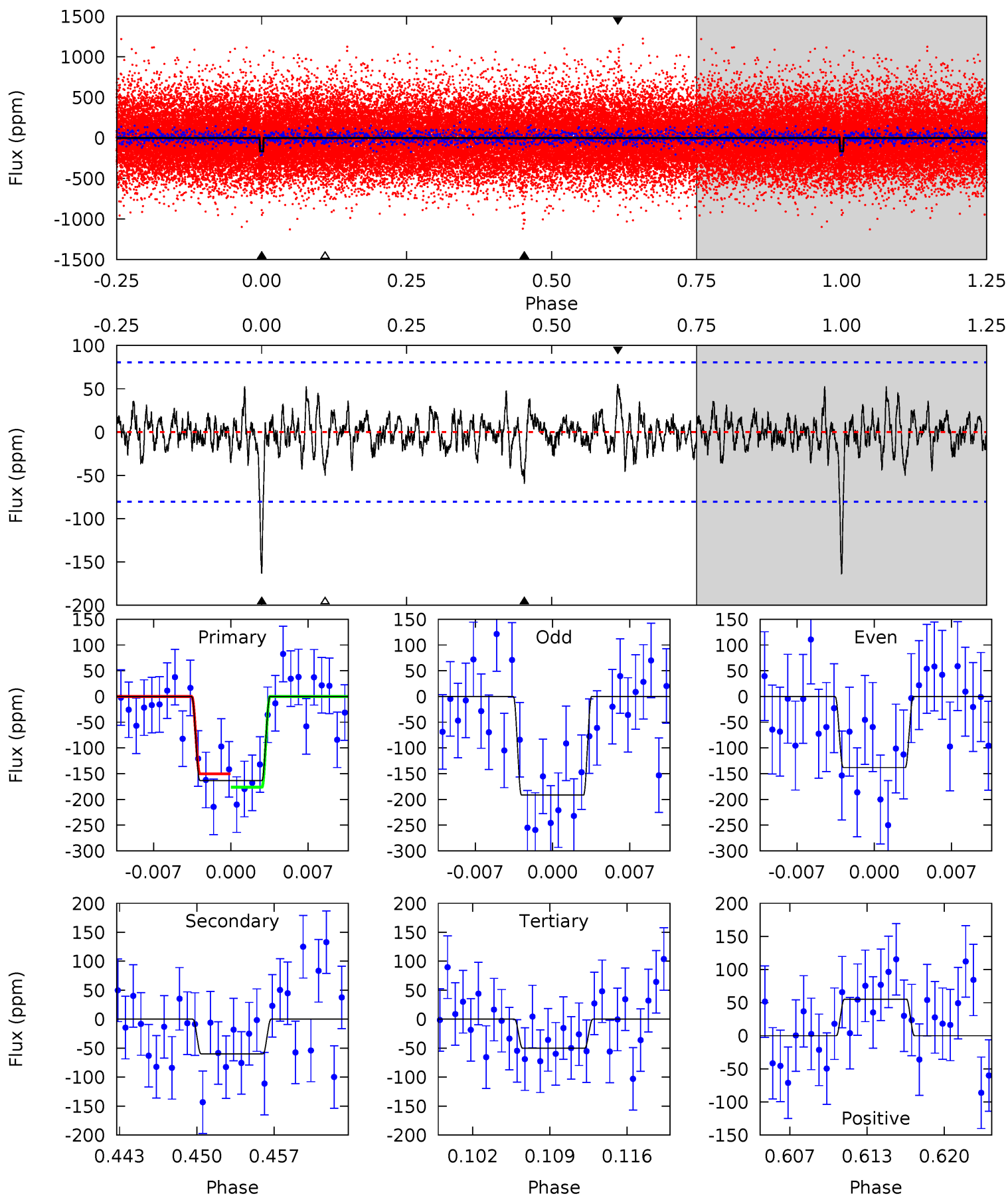
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	3.75	3.44	4.08	5.09	2.68	1.14	7.31	6.67	0.31	-0.33	0.82	0.93	0.28	0.49



Alt Model-Shift Uniqueness Test

007119481-02, P = 42.067610 Days, E = 165.047479 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	3.79	3.18	3.50	5.10	2.71	0.99	7.17	6.85	0.61	0.28	1.69	1.06	0.25	0.83



Stellar Parameters For KIC 007119481

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+182}_{-200}	$4.487^{+0.054}_{-0.216}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.302}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.459}_{-0.848}$
	+3%/-3%	+1%/-5%	+139%/-194%	+31%/-10%	+13%/-13%	+28%/-52%
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 007119481-02 / KOI 0566.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-58 ± 15	$1.54^{+0.78}_{-0.66}$	772^{+61}_{-37}	4663^{+1353}_{-669}	725^{+1588}_{-411}
Alt.	-60 ± 16	$1.47^{+0.76}_{-0.71}$	777^{+57}_{-40}	4801^{+1563}_{-730}	827^{+2158}_{-461}

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

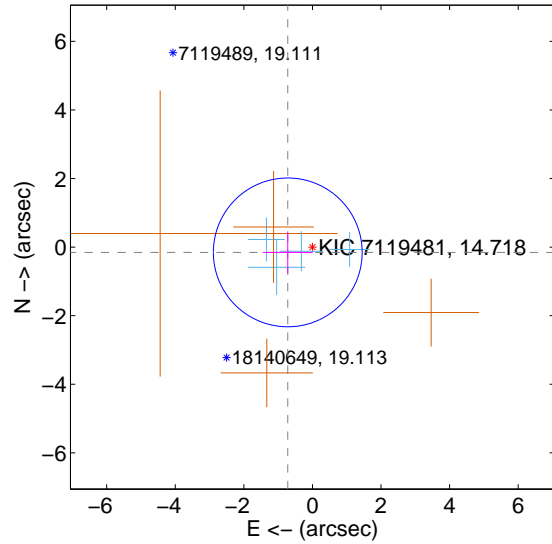
Supplemental centroid analysis for 007119481-02. Kepler magnitude: 14.72. Transit SNR 8.86

There are 4 quarters with good PRF difference image offsets

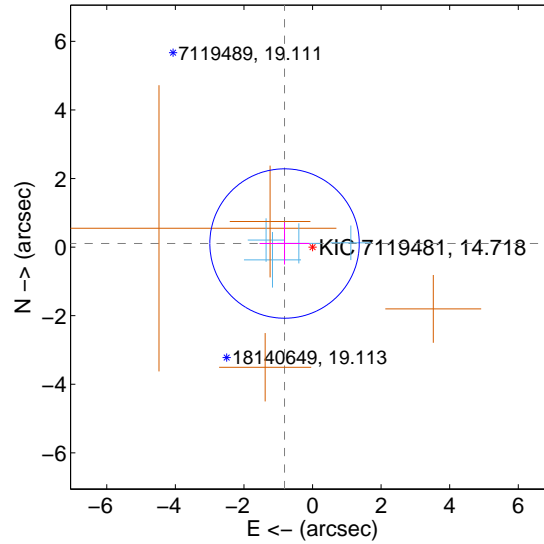
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.736 ± 0.723	1.02	0.720 ± 0.728	-0.154 ± 0.612
PRF-fit source offset from KIC position	0.823 ± 0.726	1.13	0.816 ± 0.728	0.104 ± 0.612
photometric centroid source offset	1.61 ± 1.42	1.13	-0.67 ± 1.54	-1.46 ± 1.40

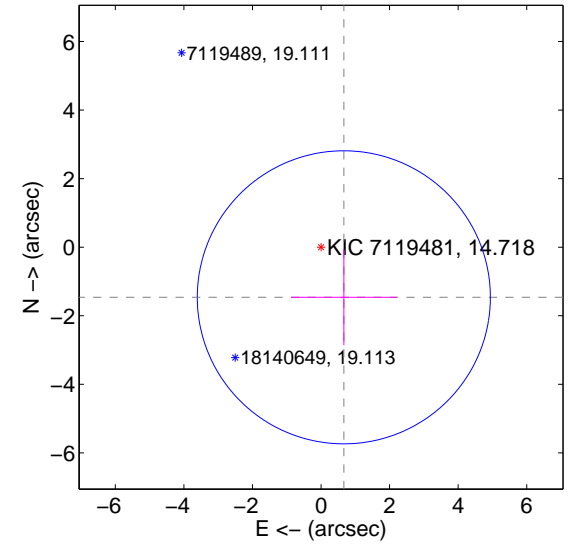
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

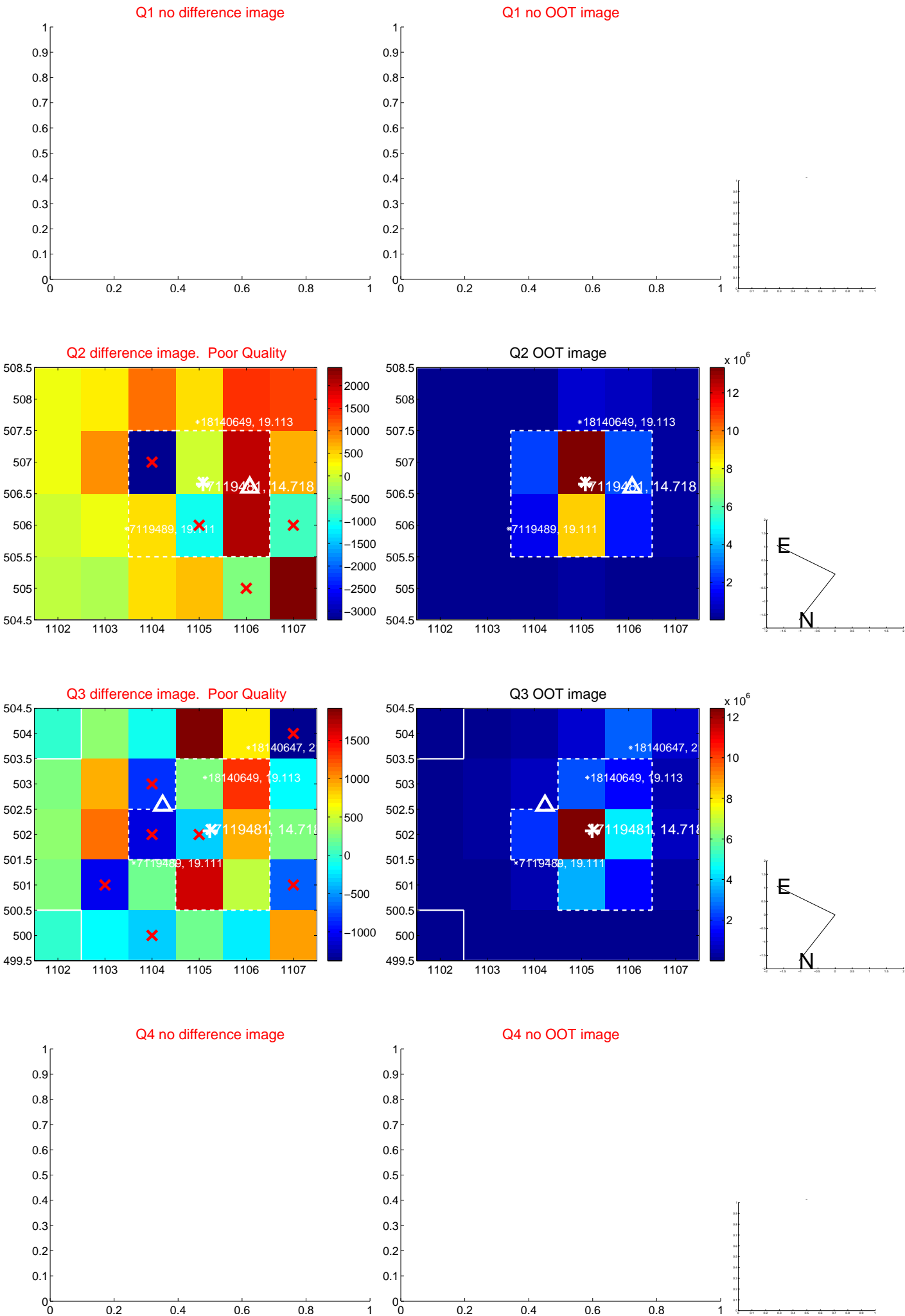


offset from photometric centroids

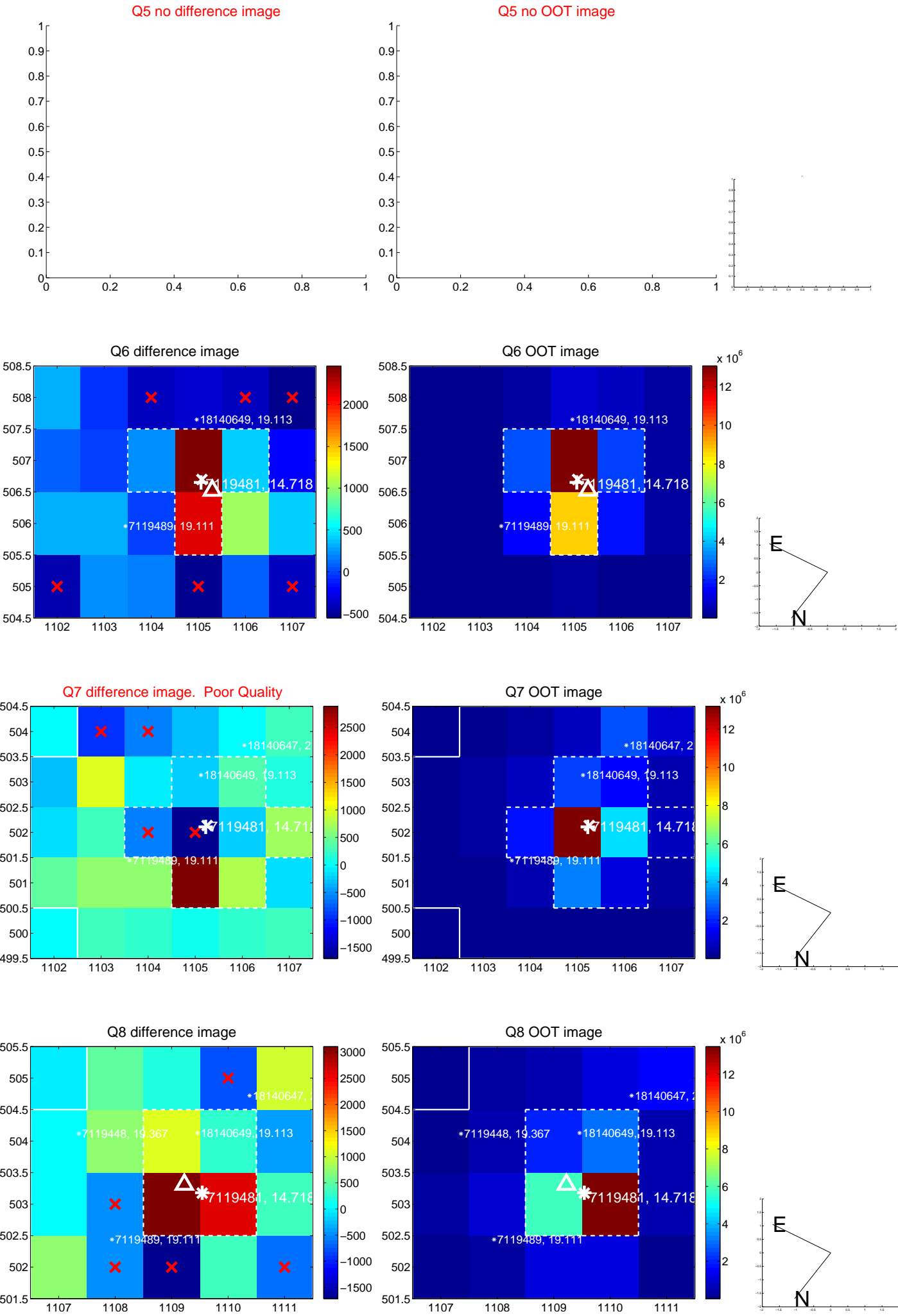


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

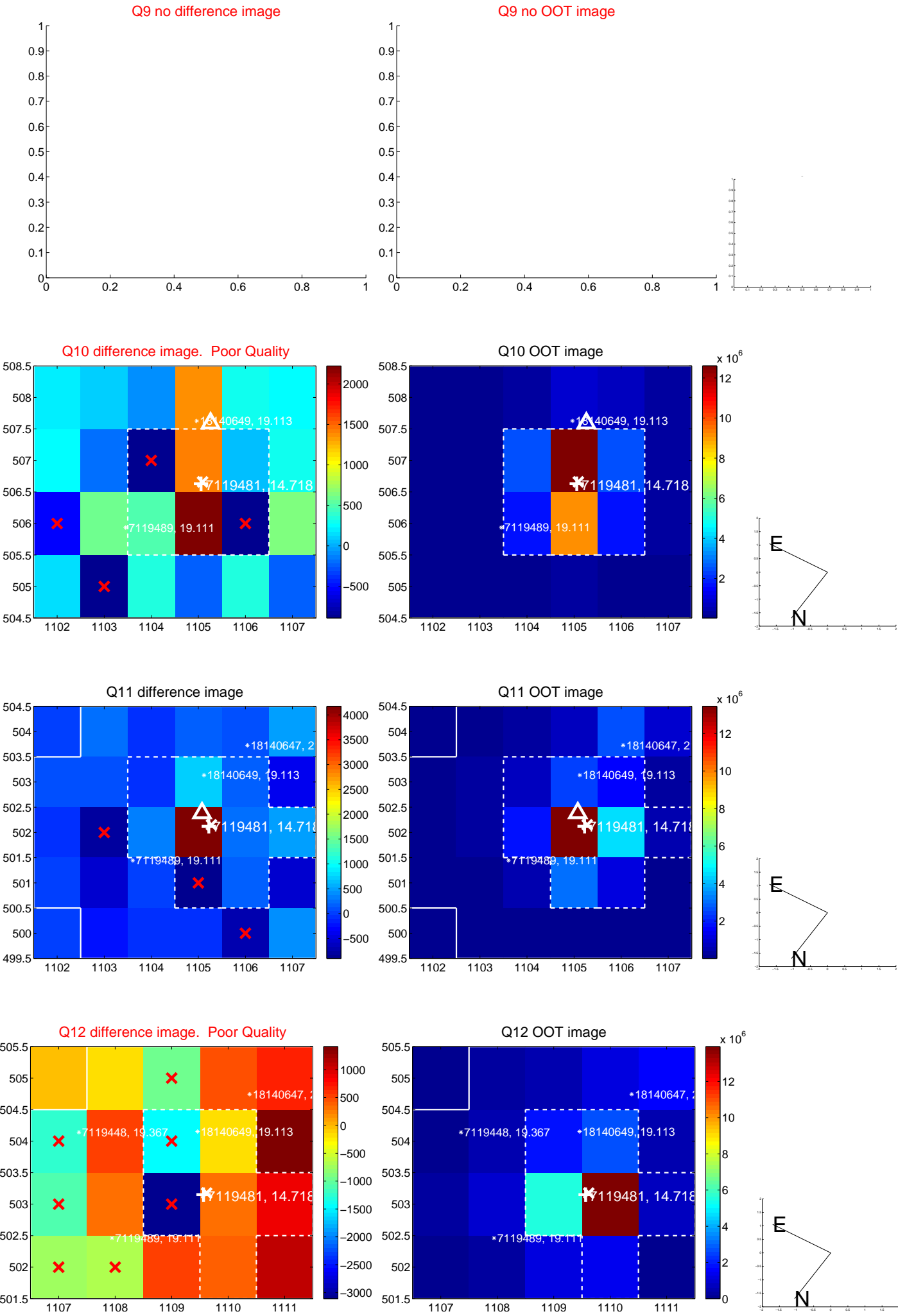
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



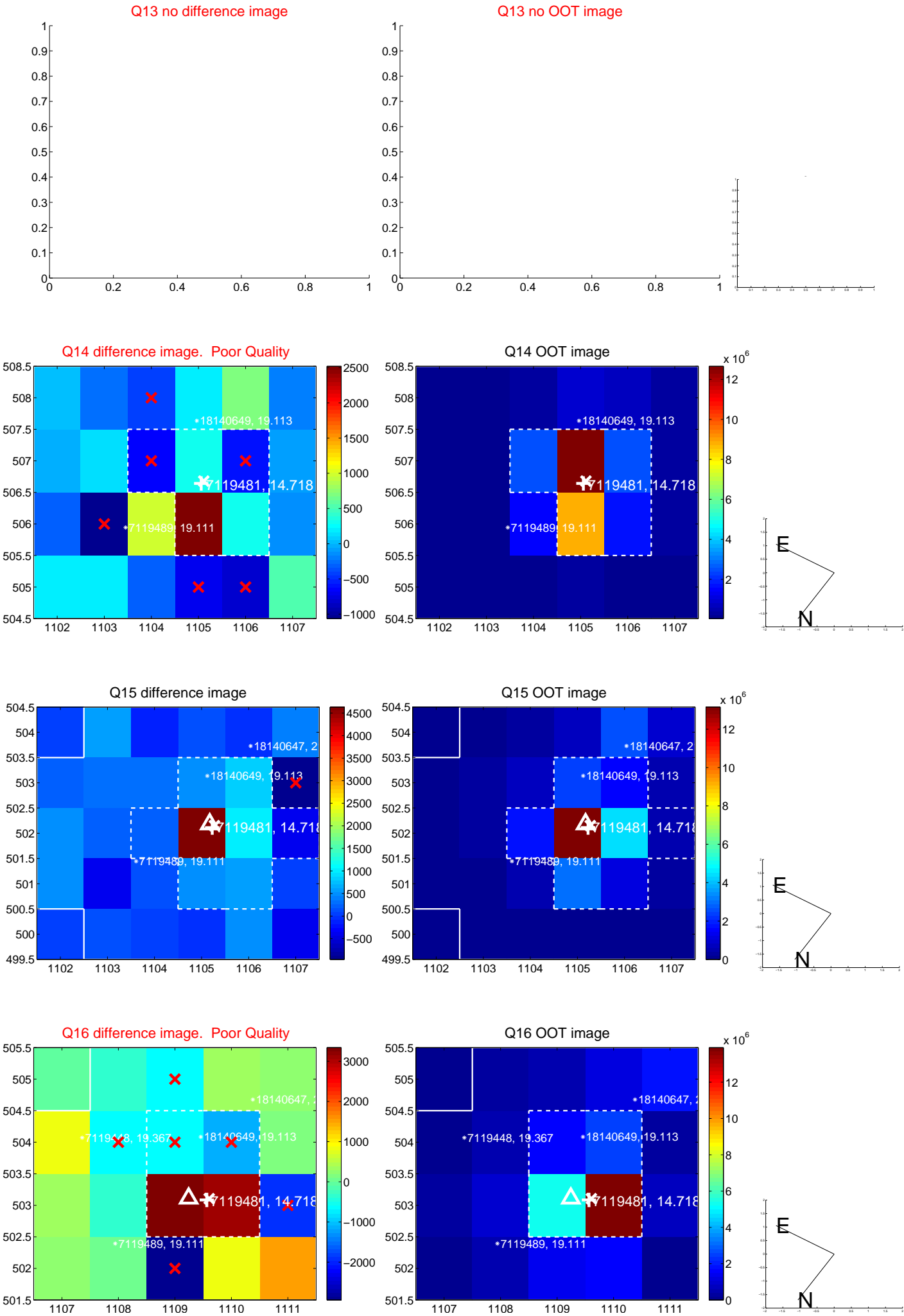
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



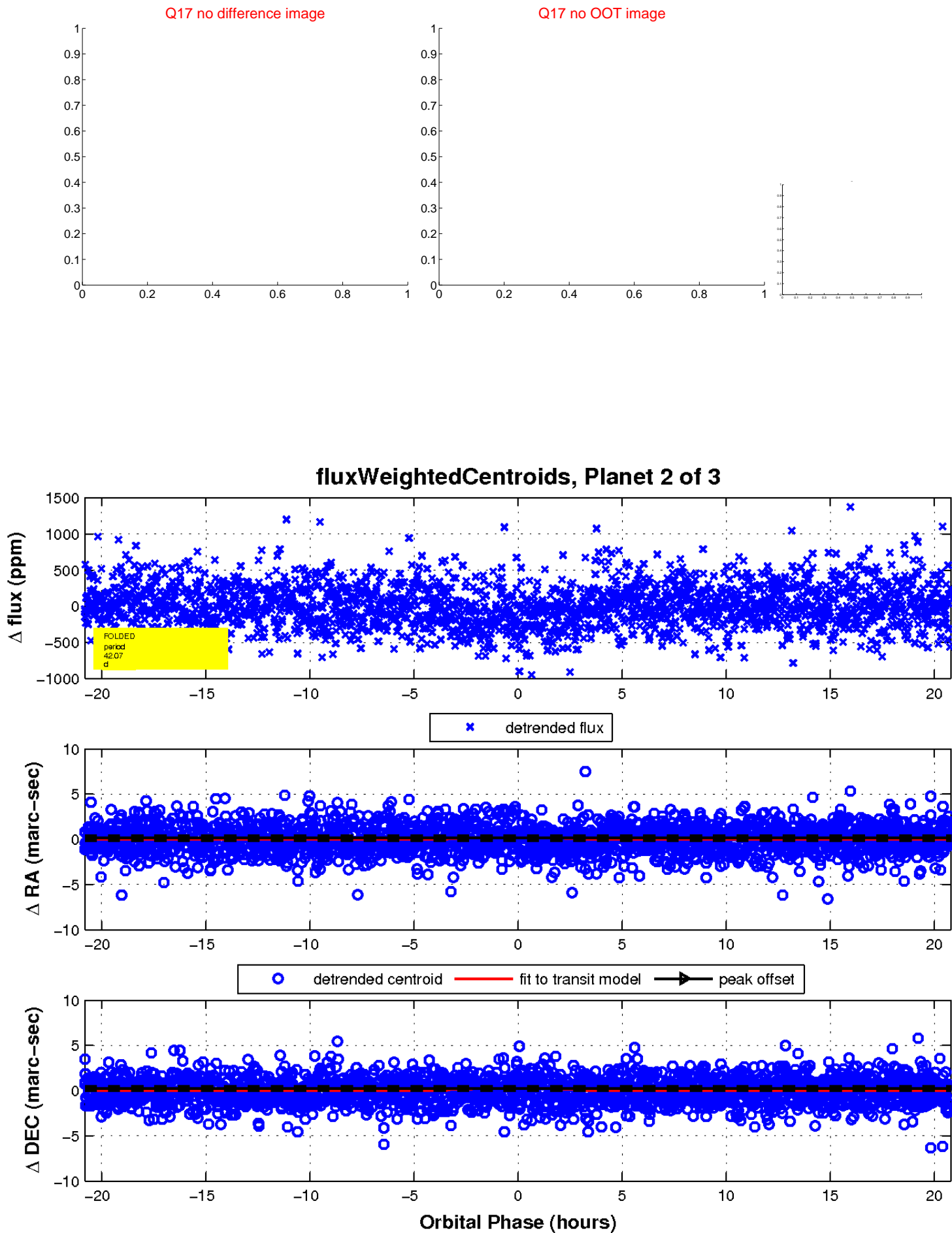
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

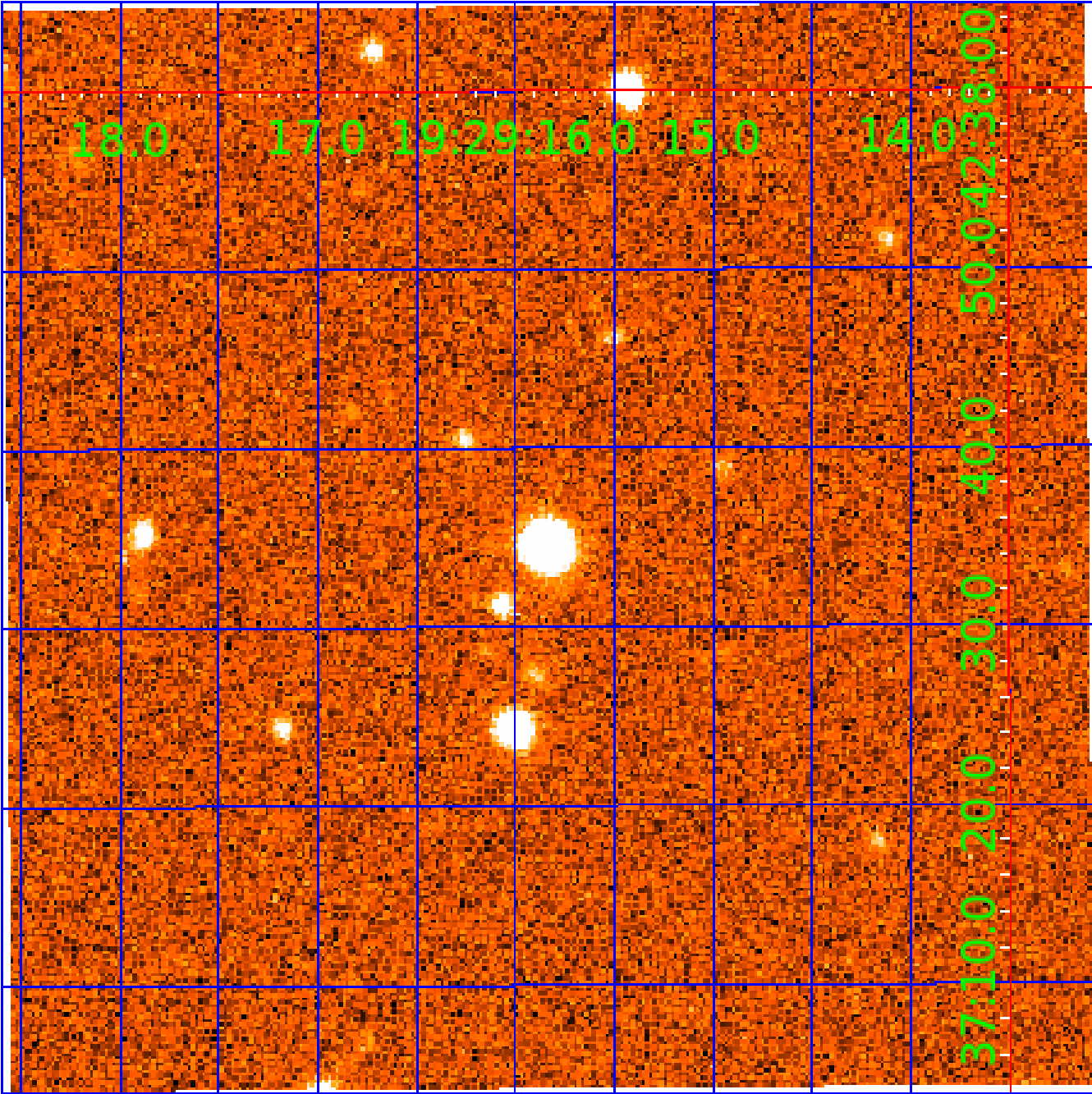


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007119481

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})
007119481-01	OBS	0566.01	25.855062	140.863271	609.0	4.017	26.6	29.2	0.96	6122	2.62	38.89
007119481-02	OBS	0566.03	42.066567	165.060847	177.4	6.936	8.4	8.9	0.96	6122	1.46	20.32
007119481-03	OBS	0566.02	14.157251	135.606175	117.4	3.833	8.3	7.7	0.96	6122	1.25	86.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007119481-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT
007119481-02	OBS	PC	0.96	0	0	0	0	NO_COMMENT
007119481-03	OBS	PC	0.70	0	0	0	0	NO_COMMENT

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

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

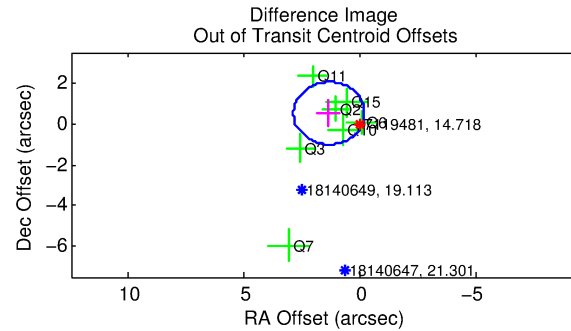
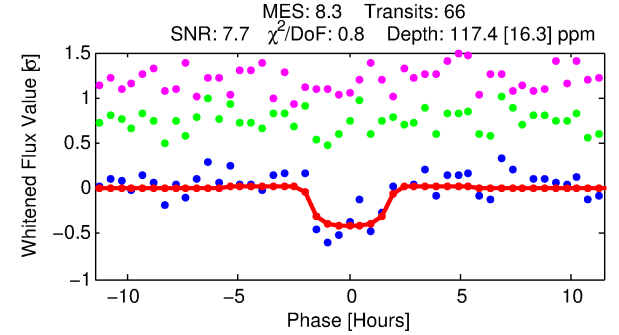
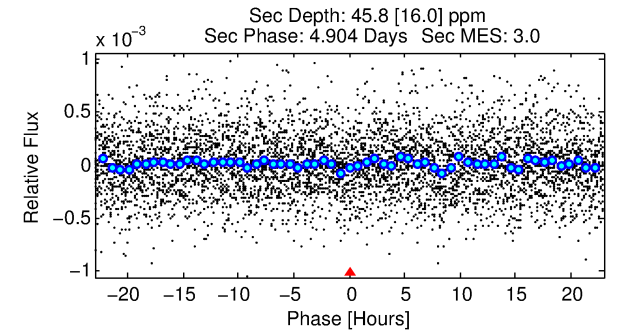
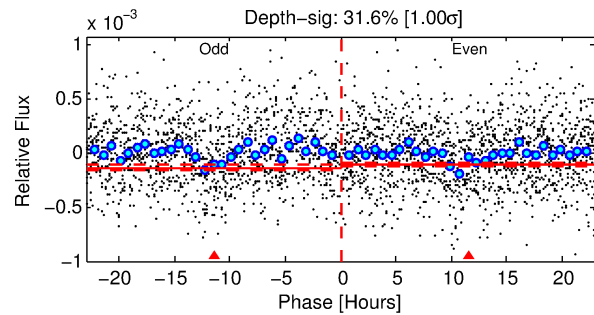
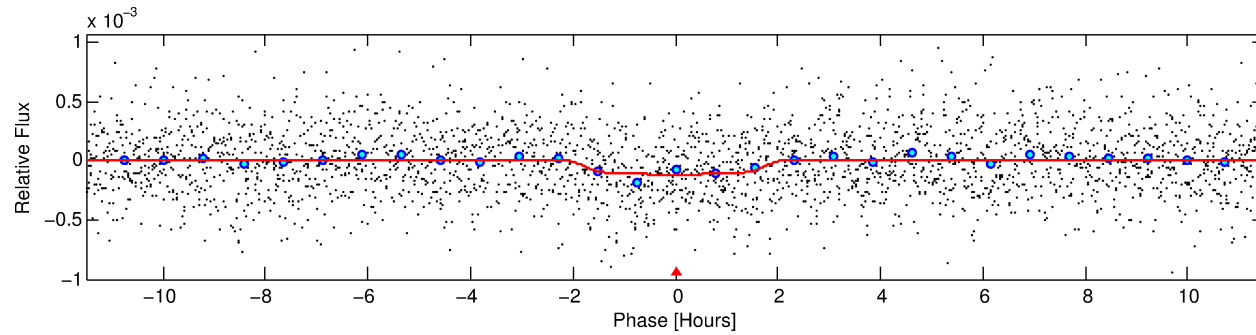
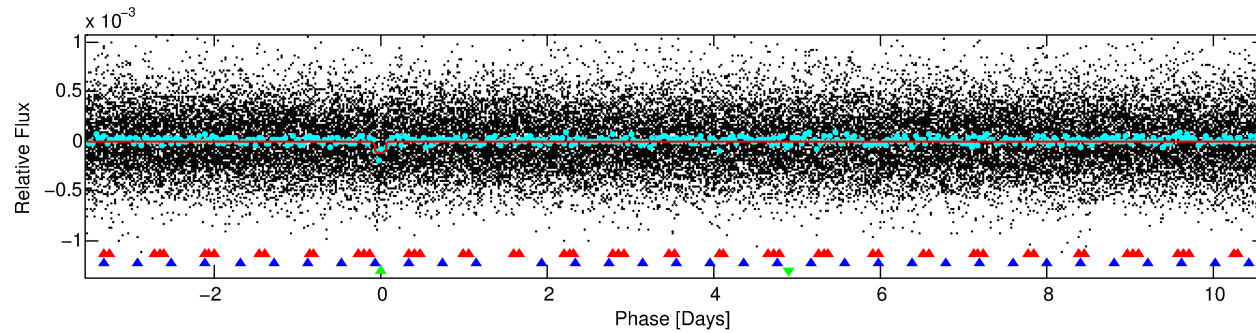
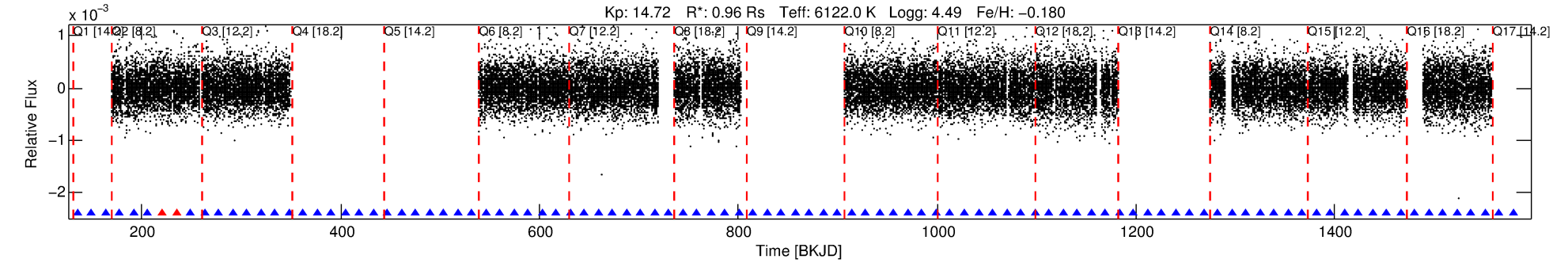
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007119481-03

No Significant Match Found

DV One-Page Summary

KIC: 7119481 Candidate: 3 of 3 Period: 14.157 d
KOI: K00566.02 Corr: 0.974



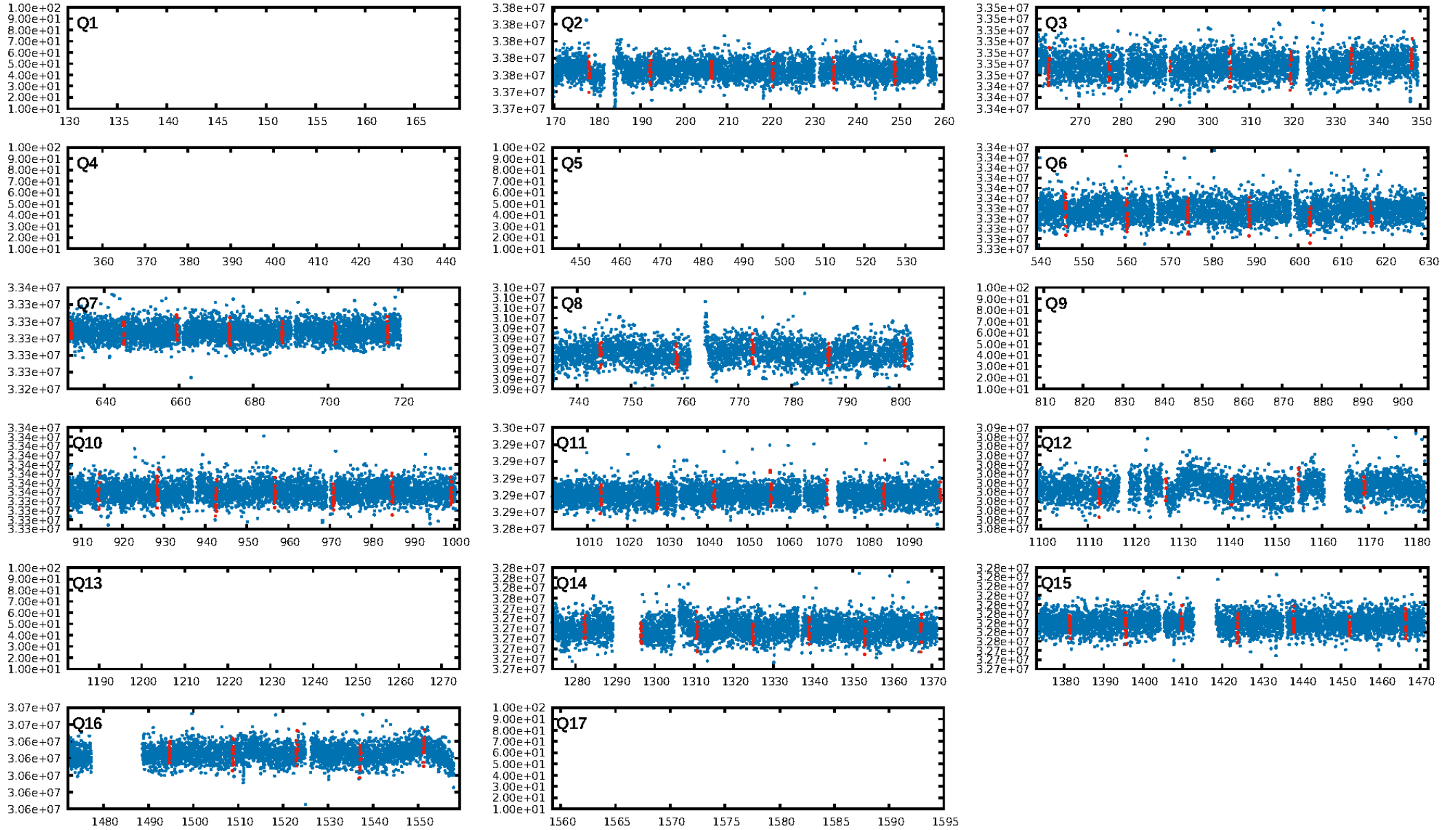
DV Fit Results:

Period = 14.15725 [0.00019] d
Epoch = 135.6062 [0.0115] BKJD
Rp/R* = 0.0118 [0.0066]
a/R* = 12.23 [36.73]
b = 0.91 [0.55]
Seff = 86.81 [35.86]
Teq = 778 [80] K
Rp = 1.25 [0.80] Re
a = 0.1161 [0.0310] AU
Ag = 218.48 [270.69] [0.80 σ]
Teffp = 4627 [1368] K [2.81 σ]

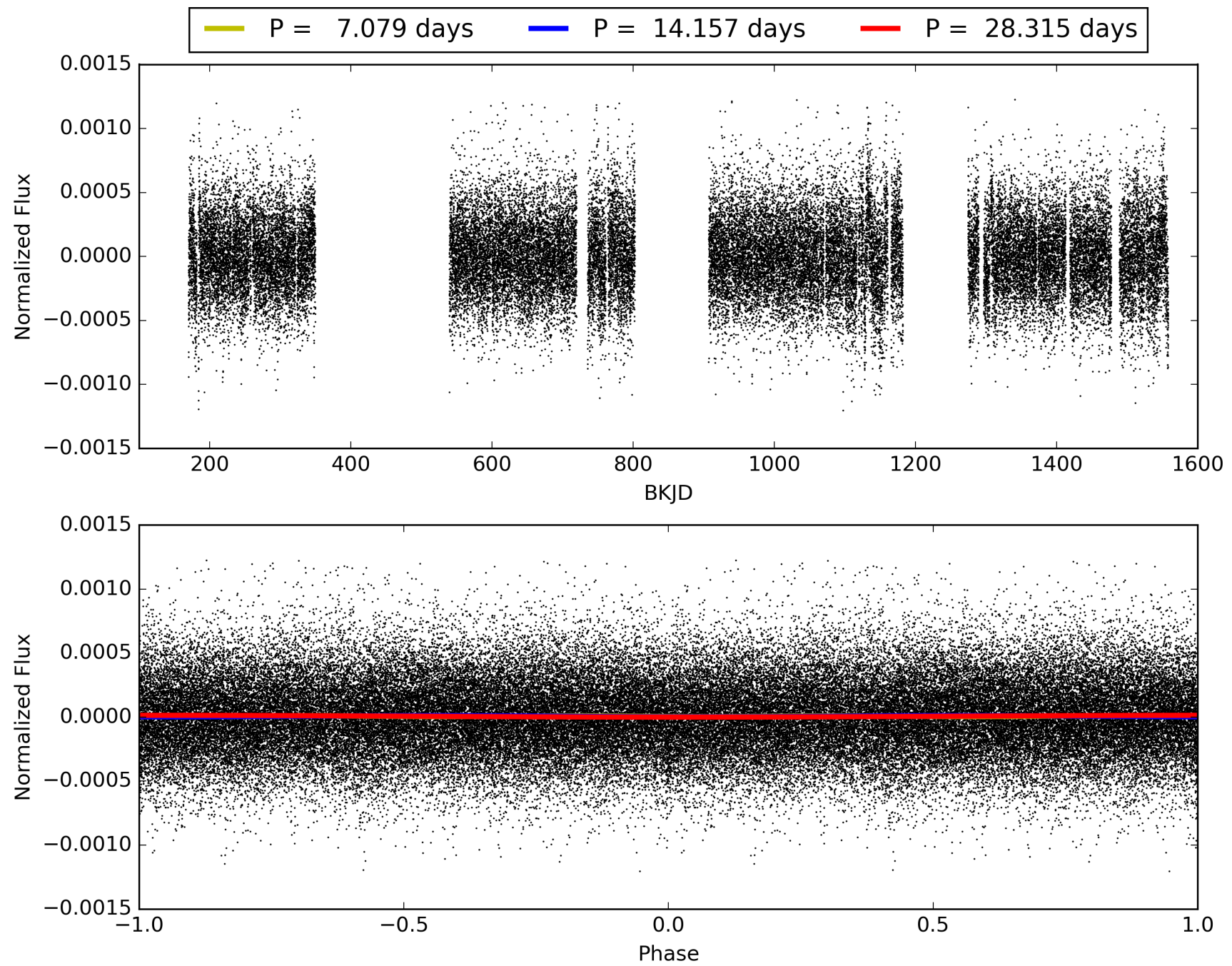
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [50.56 σ]
ModelChiSquare2-sig: 98.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.89e-16
RollingBand-fgt: 0.97 [64/66]
GhostDiagnostic-chr: 26.71
Centroid-sig: 98.6%
Centroid-so: 0.254 arcsec [0.14 σ]
OotOffset-rm: 1.448 arcsec [2.84 σ]
KicOffset-rm: 1.538 arcsec [2.92 σ]
OotOffset-st: 3/4/0/0 [7]
KicOffset-st: 3/4/0/0 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 1.00 [11/11]

TCE 007119481-03, PDC Light Curves

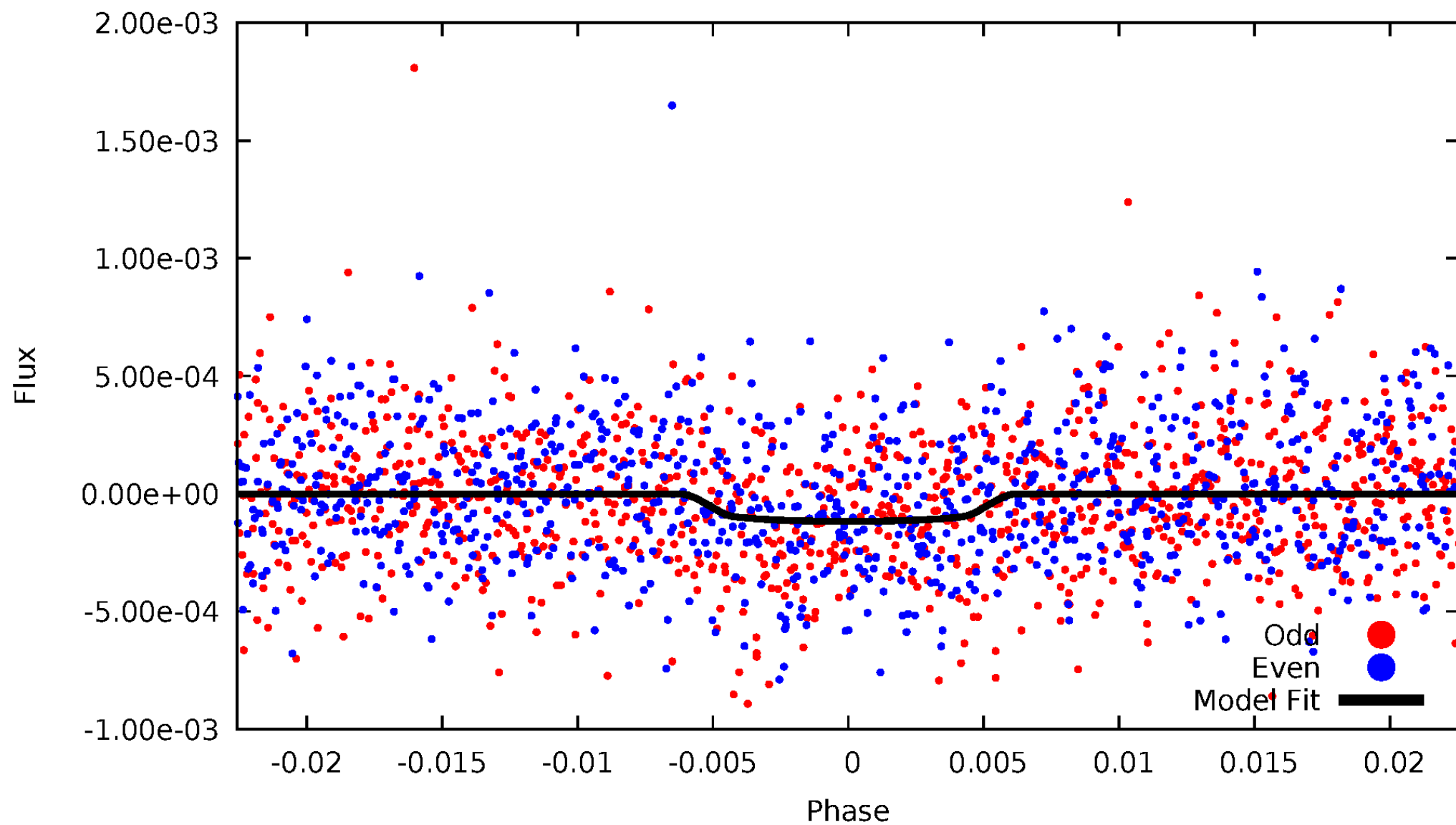


TCE 007119481-03



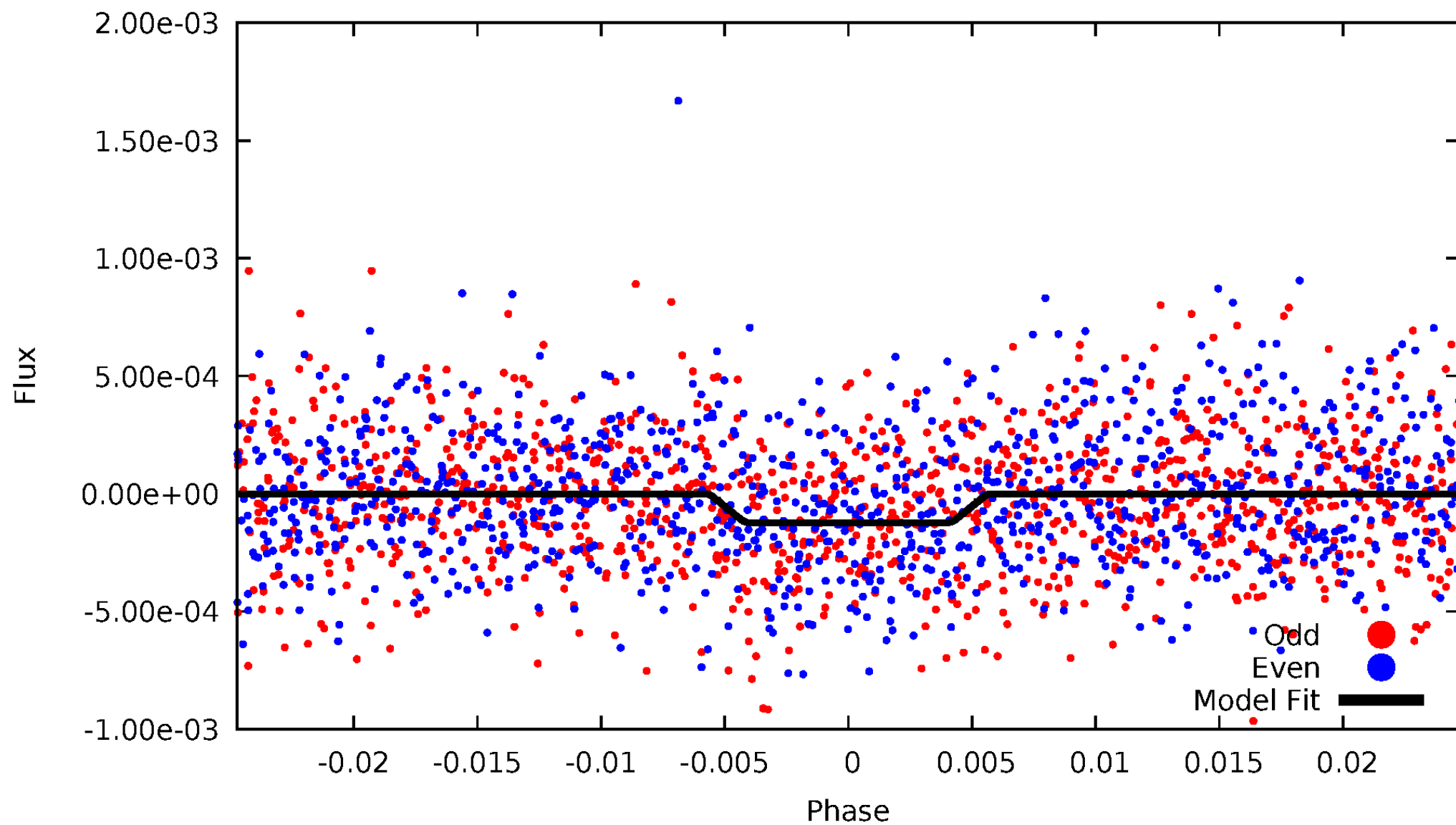
DV Odd/Even

TCE 007119481-03

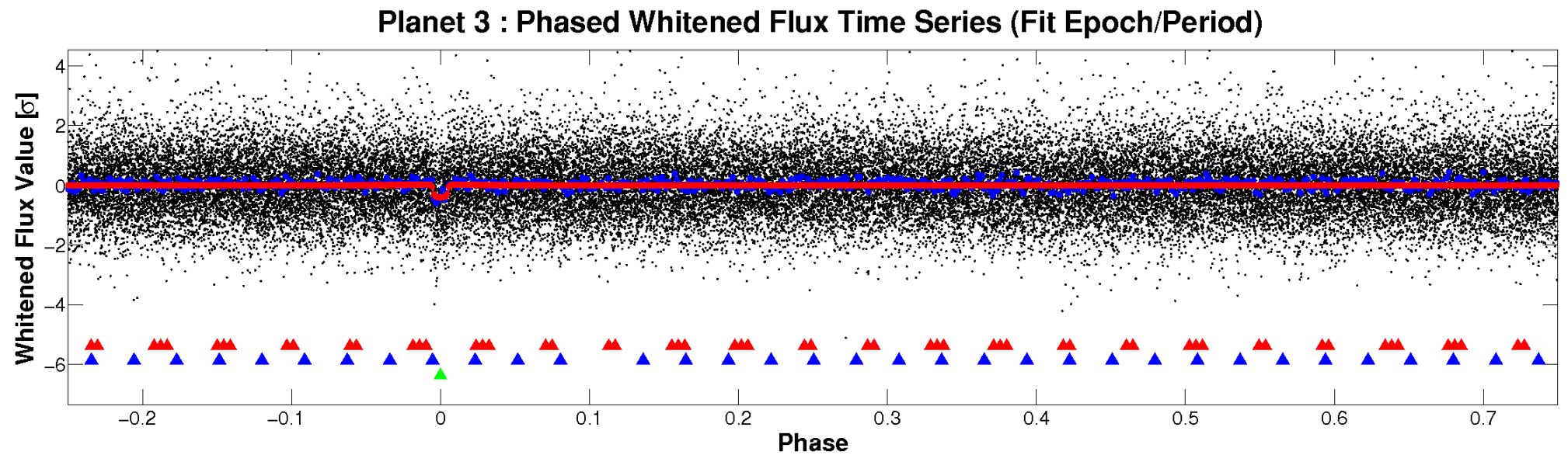
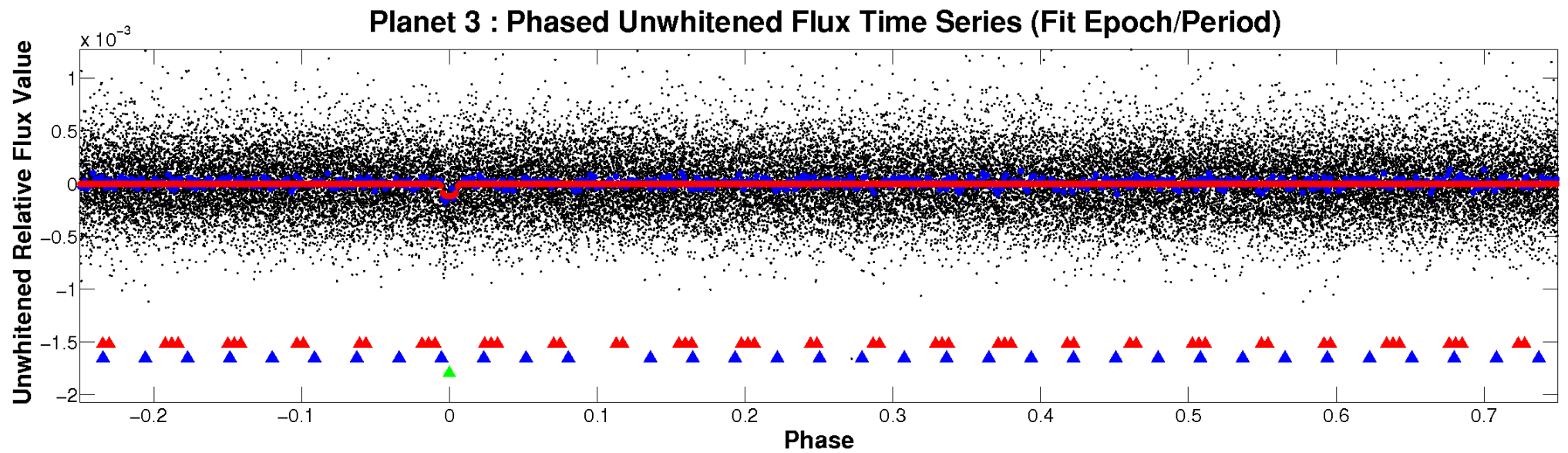


ALT Odd/Even

TCE 007119481-03

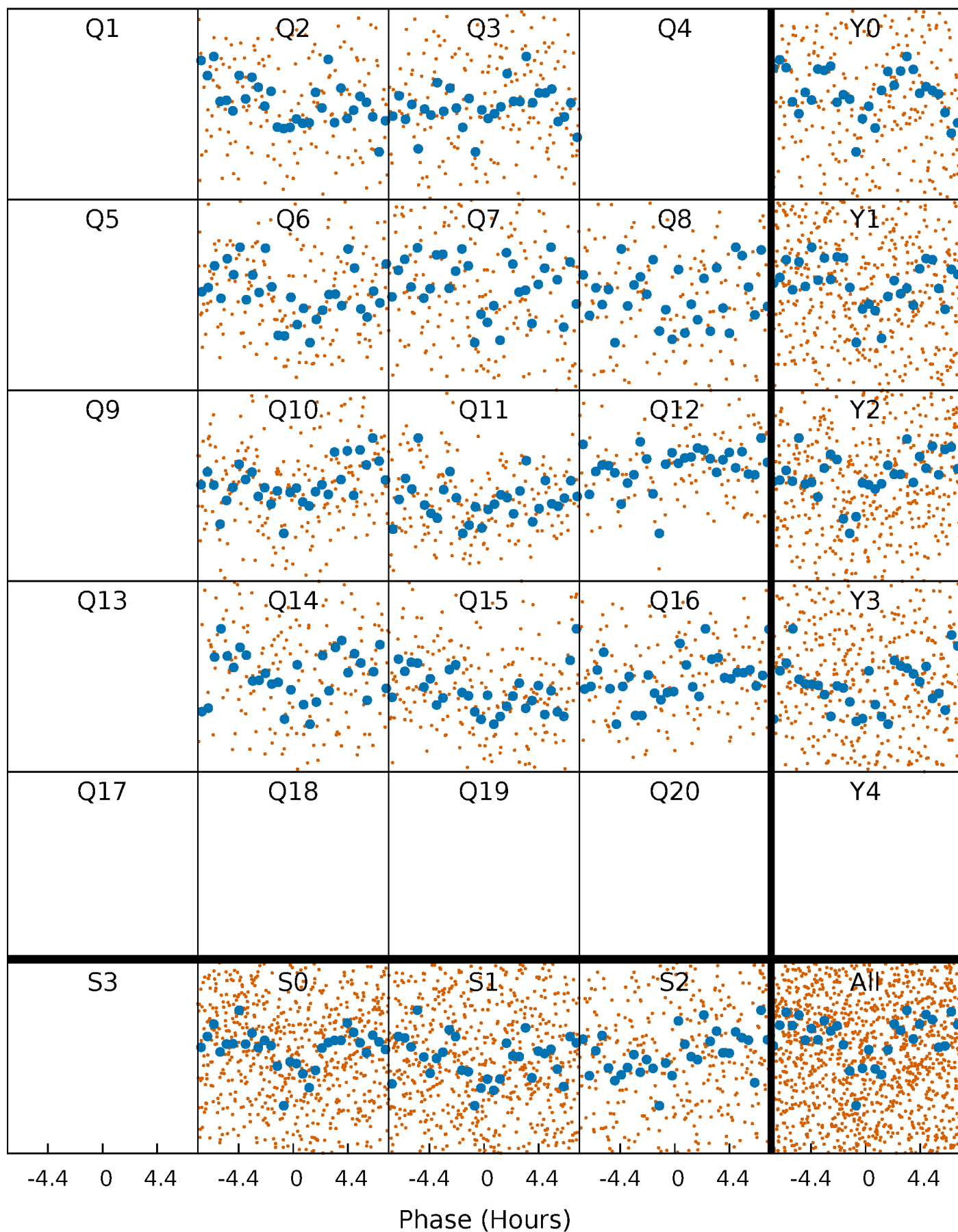


Non-Whitened Vs. Whitened Light Curve



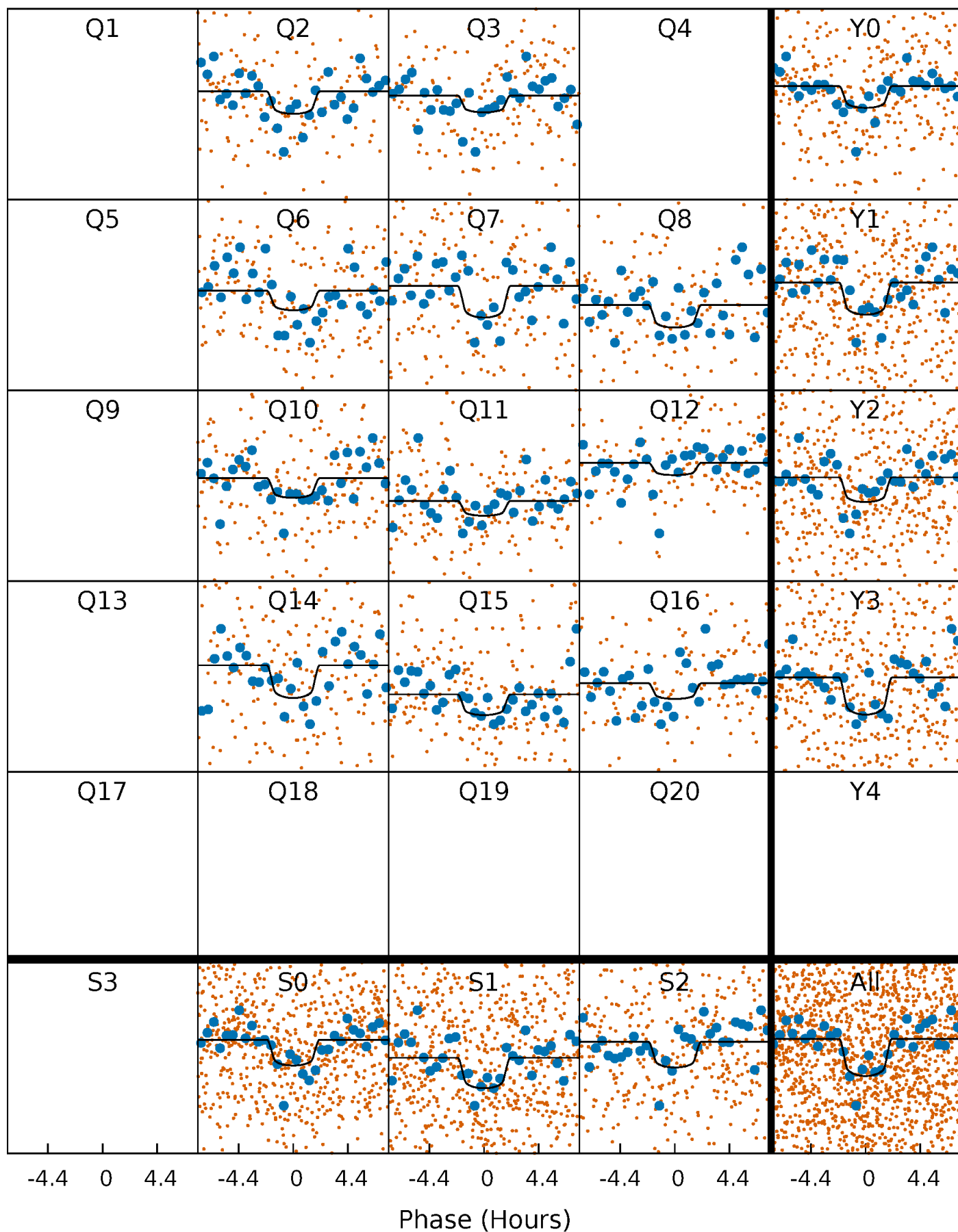
PDC Quarter-Phased Transit Curves

TCE 007119481-03 P= 14.157251 Days $T_0=135.606175$ (BKJD)



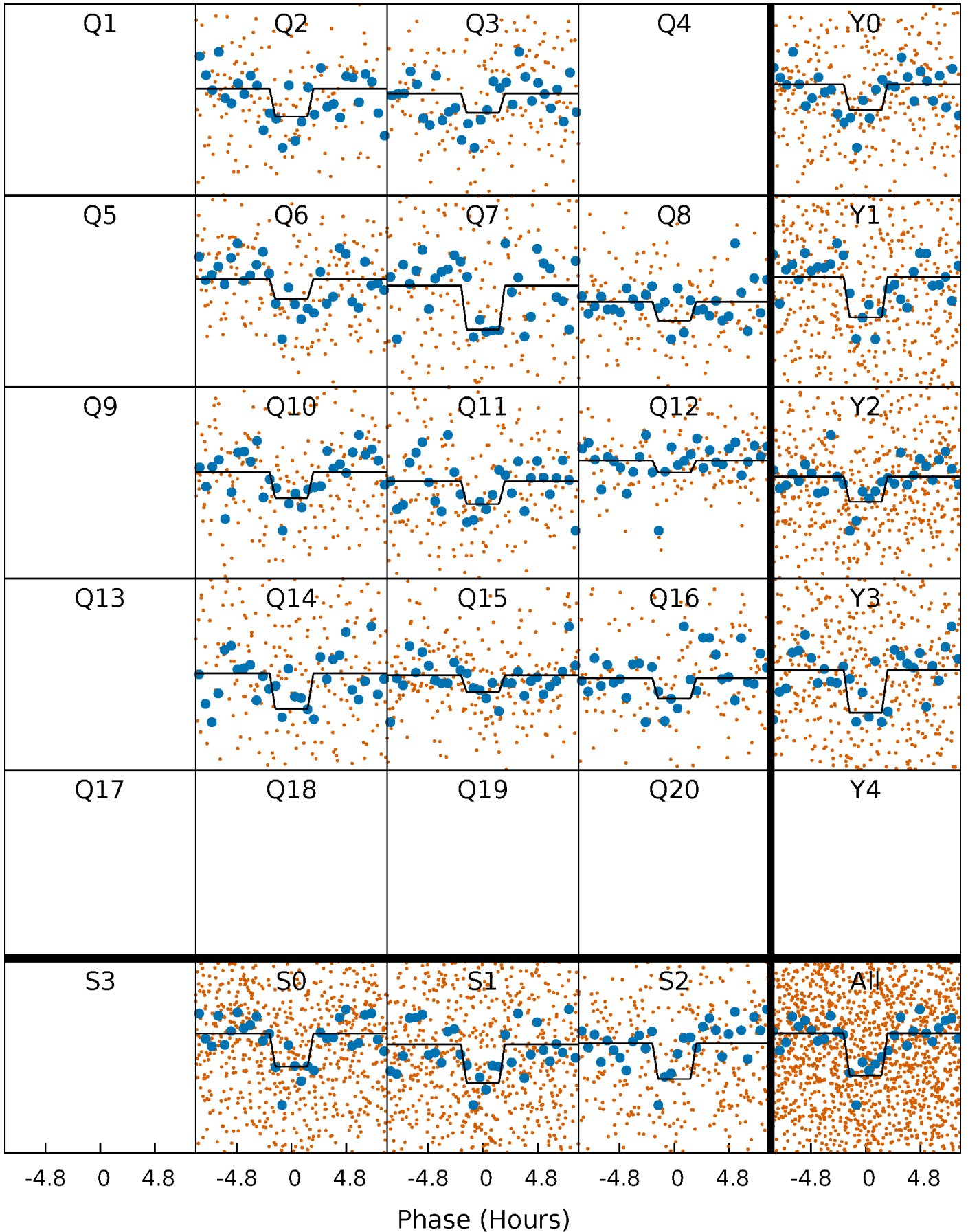
DV Quarter-Phased Transit Curves

TCE 007119481-03 P= 14.157251 Days $T_0=135.606175$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

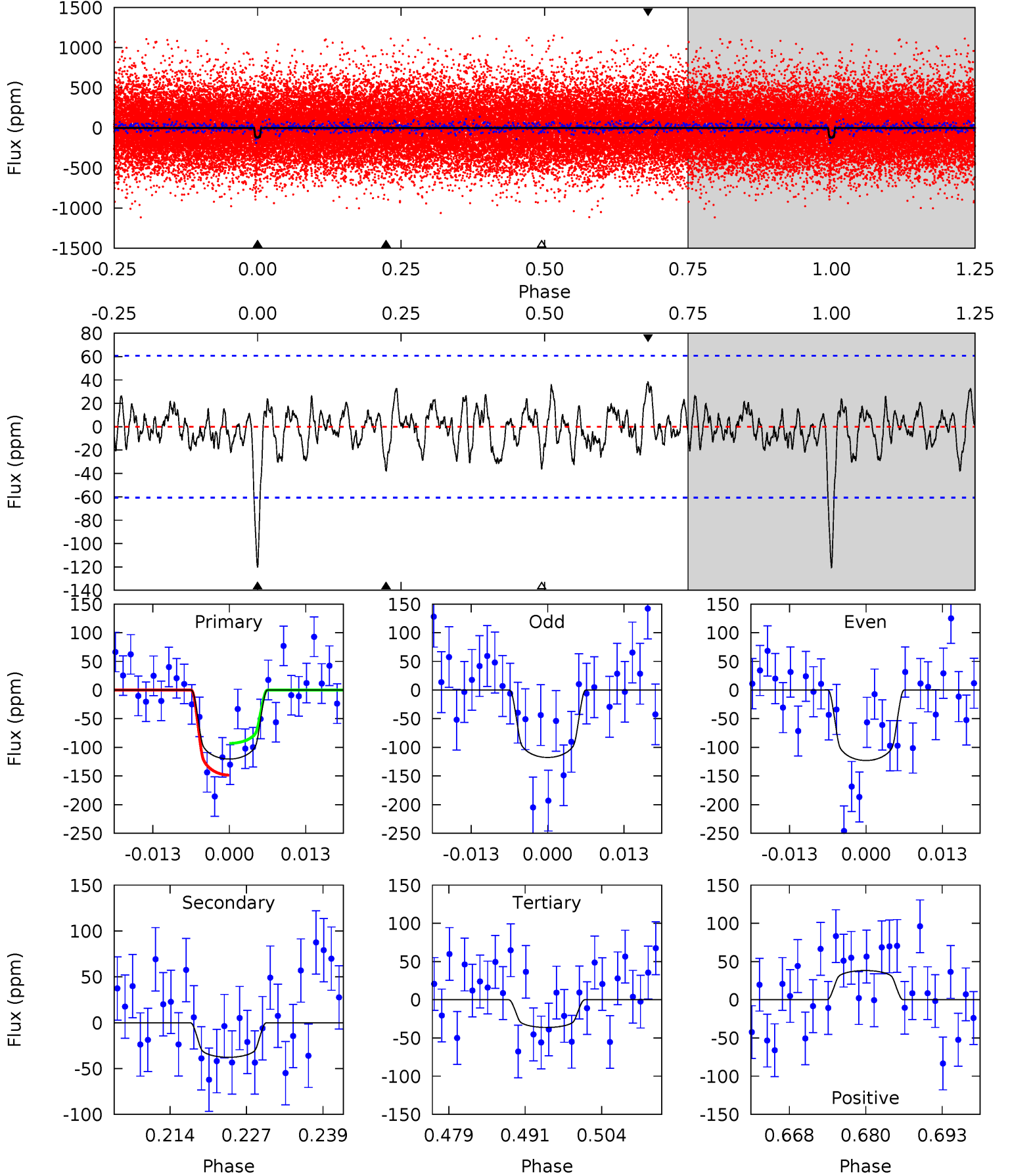
TCE 007119481-03 P= 14.157018 Days $T_0=135.618351$ (BKJD)



DV Model-Shift Uniqueness Test

007119481-03, $P = 14.157251$ Days, $E = 135.606175$ Days

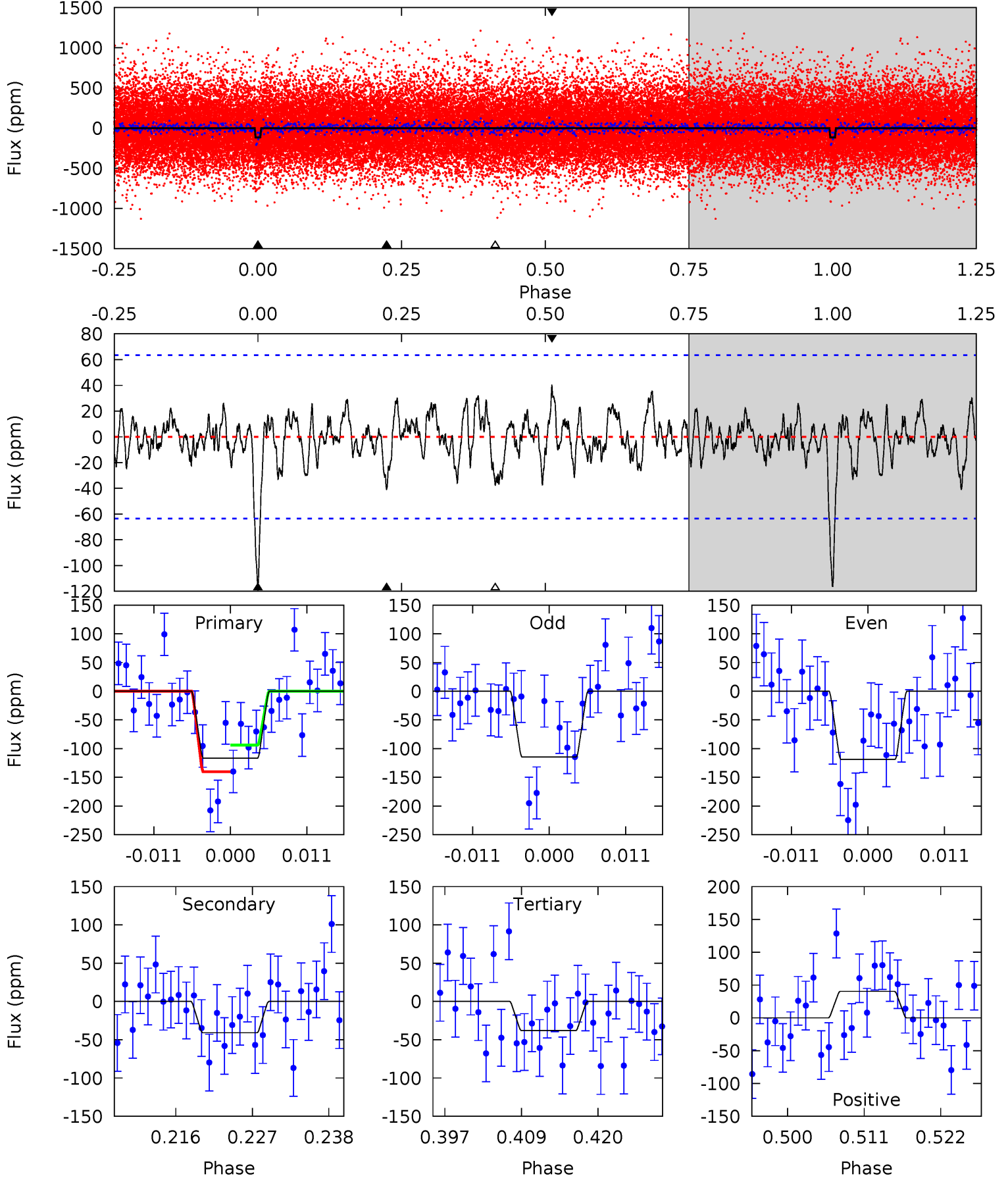
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.89	3.10	2.98	3.14	4.98	2.49	1.11	6.91	6.75	0.12	-0.04	0.22	0.85	0.24	2.28



Alt Model-Shift Uniqueness Test

007119481-03, $P = 14.157018$ Days, $E = 135.618351$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.19	3.22	3.00	3.19	5.00	2.53	1.09	6.19	6.00	0.22	0.03	0.17	0.90	0.26	1.84



Stellar Parameters For KIC 007119481

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+182}_{-200}	$4.487^{+0.054}_{-0.216}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.302}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.459}_{-0.848}$
	+3%/-3%	+1%/-5%	+139%/-194%	+31%/-10%	+13%/-13%	+28%/-52%
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 007119481-03 / KOI 0566.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-38 ± 12	$1.33^{+0.72}_{-0.67}$	1112^{+82}_{-55}	4521^{+1730}_{-726}	149^{+493}_{-91}
Alt.	-41 ± 13	$1.33^{+0.67}_{-0.71}$	1118^{+82}_{-61}	4598^{+1886}_{-707}	171^{+567}_{-103}

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

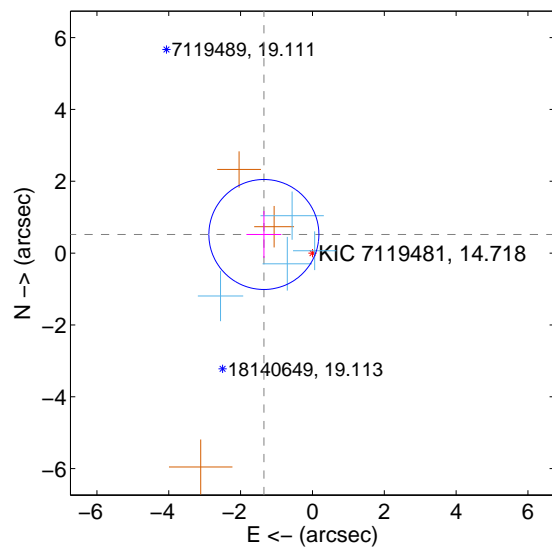
Supplemental centroid analysis for 007119481-03. Kepler magnitude: 14.72. Transit SNR 7.66

There are 4 quarters with good PRF difference image offsets

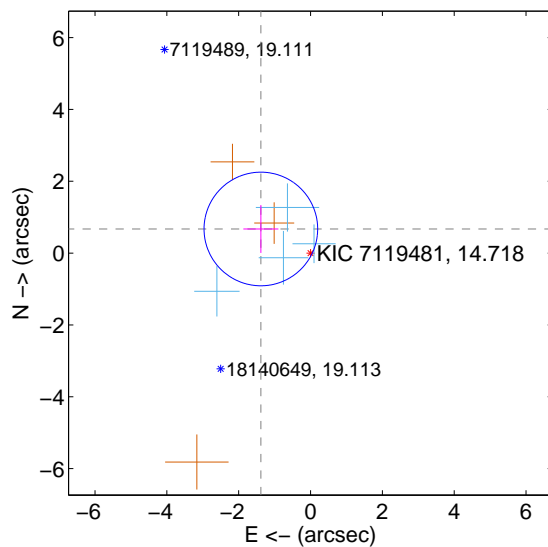
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.448 ± 0.510	2.84	1.352 ± 0.486	0.518 ± 0.655
PRF-fit source offset from KIC position	1.538 ± 0.527	2.92	1.383 ± 0.488	0.672 ± 0.667
photometric centroid source offset	0.25 ± 1.79	0.14	-0.14 ± 1.92	-0.21 ± 1.72

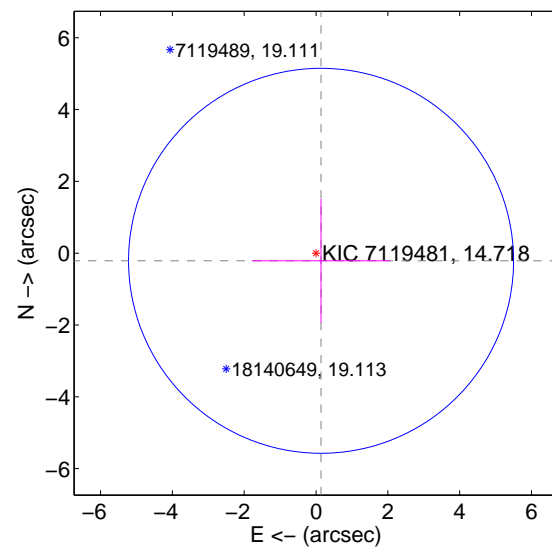
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

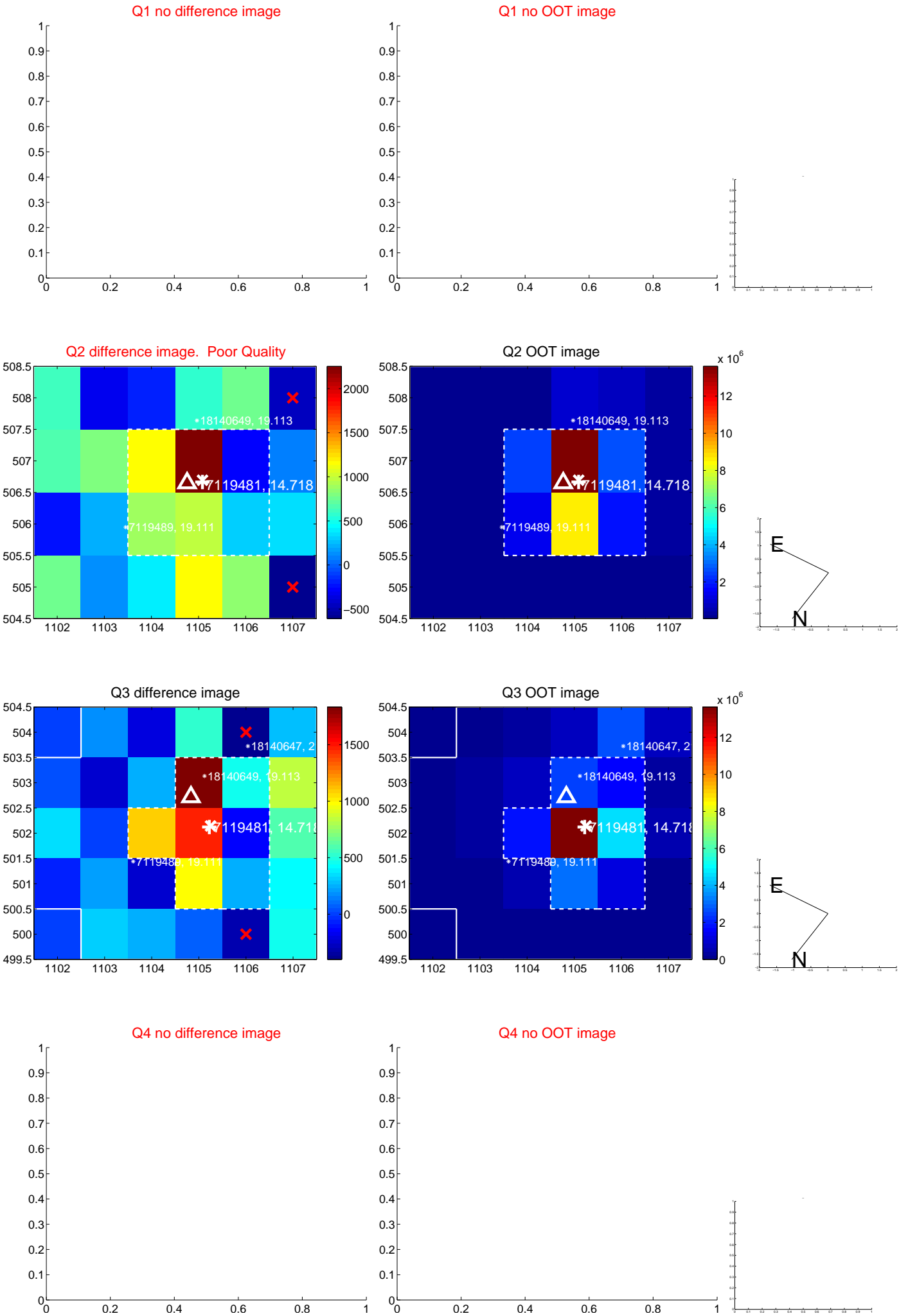


offset from photometric centroids

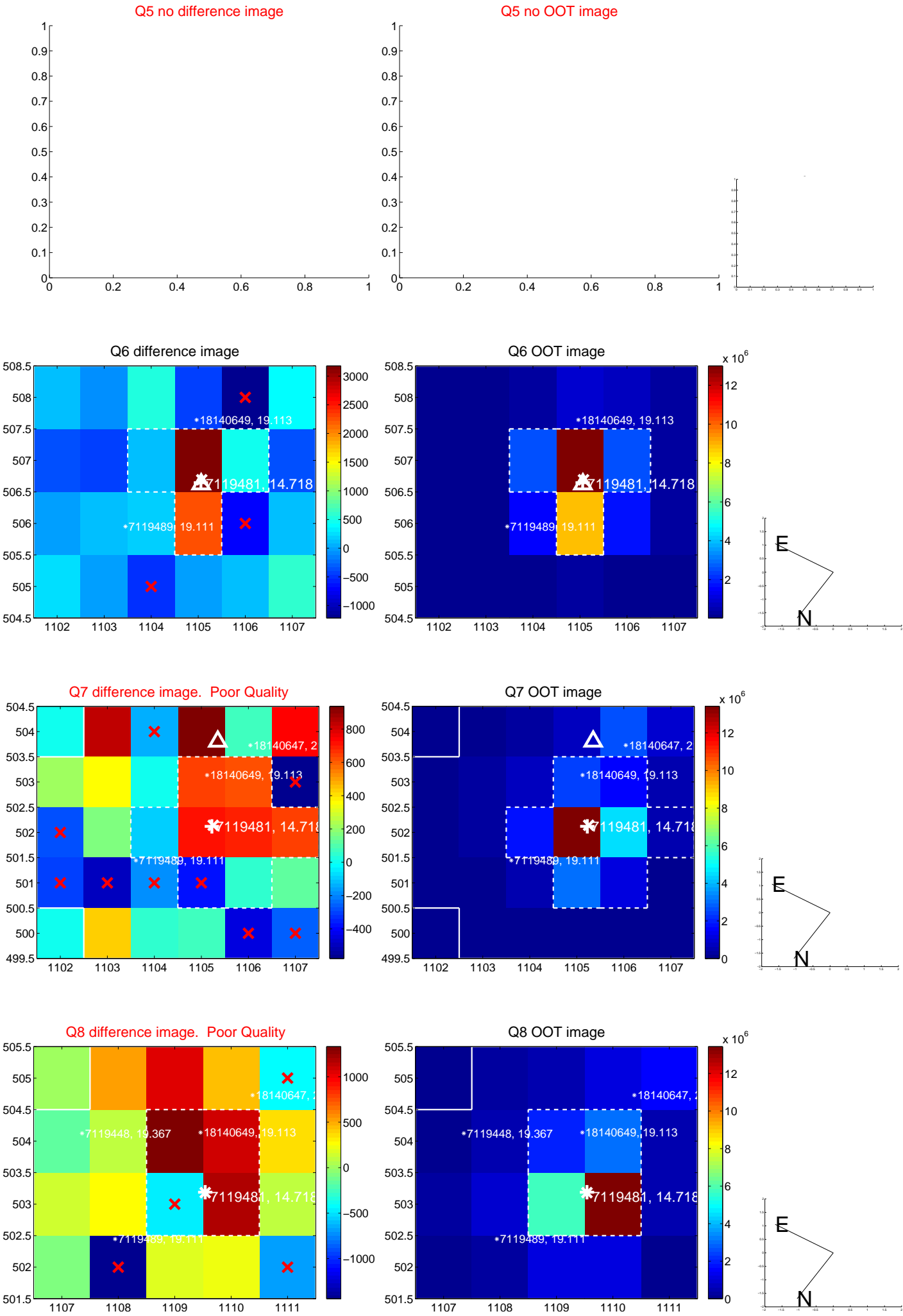


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

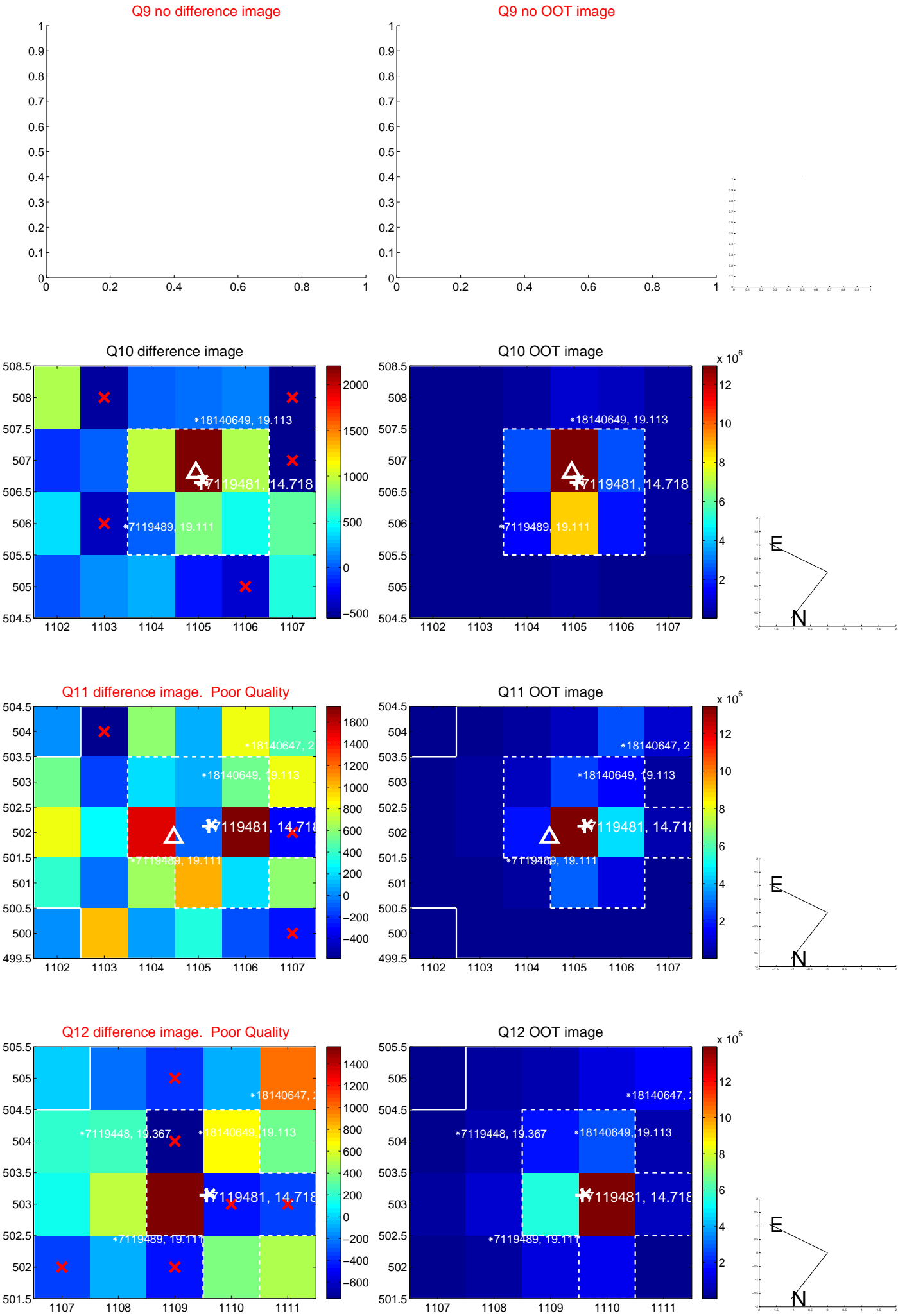
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



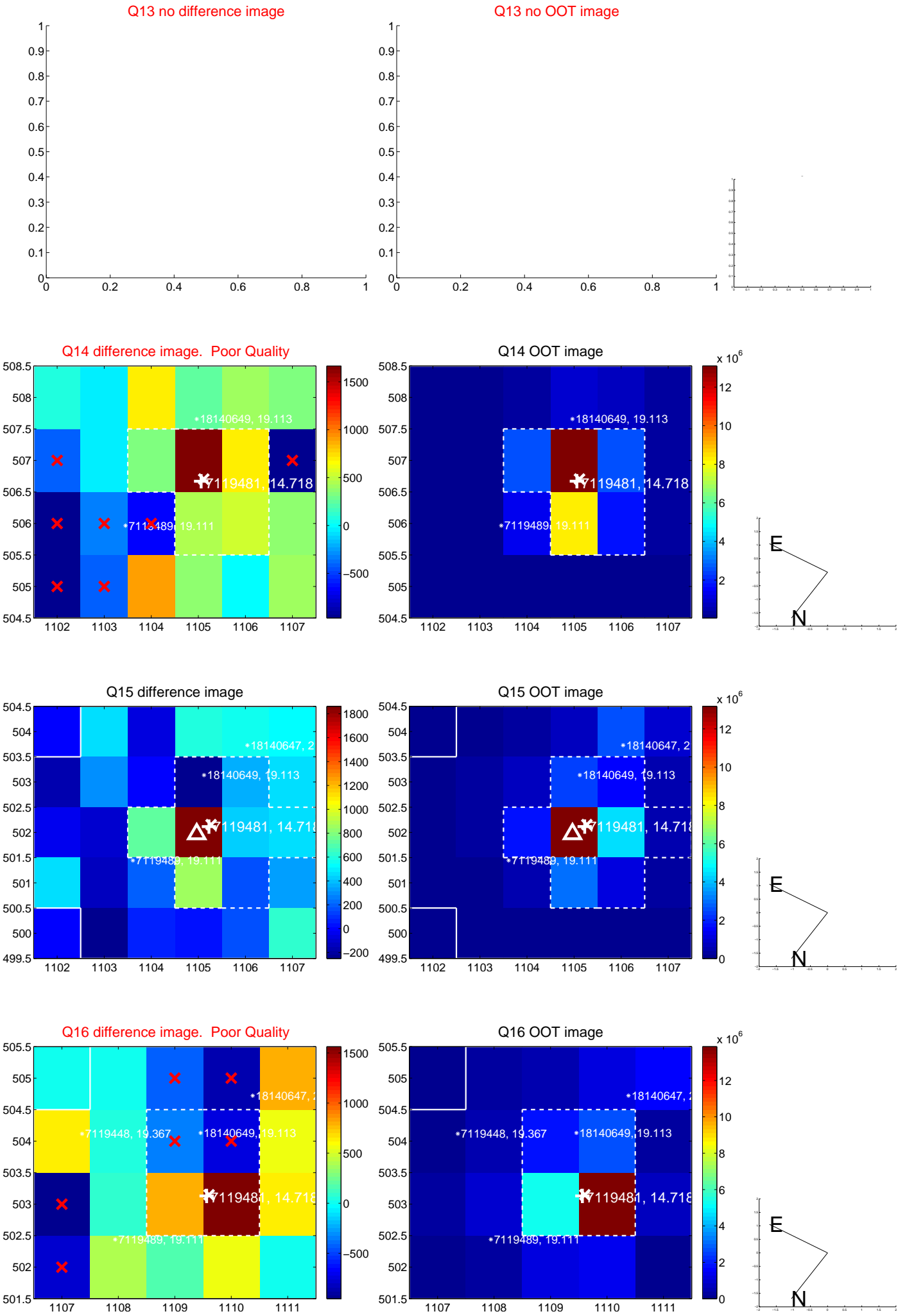
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



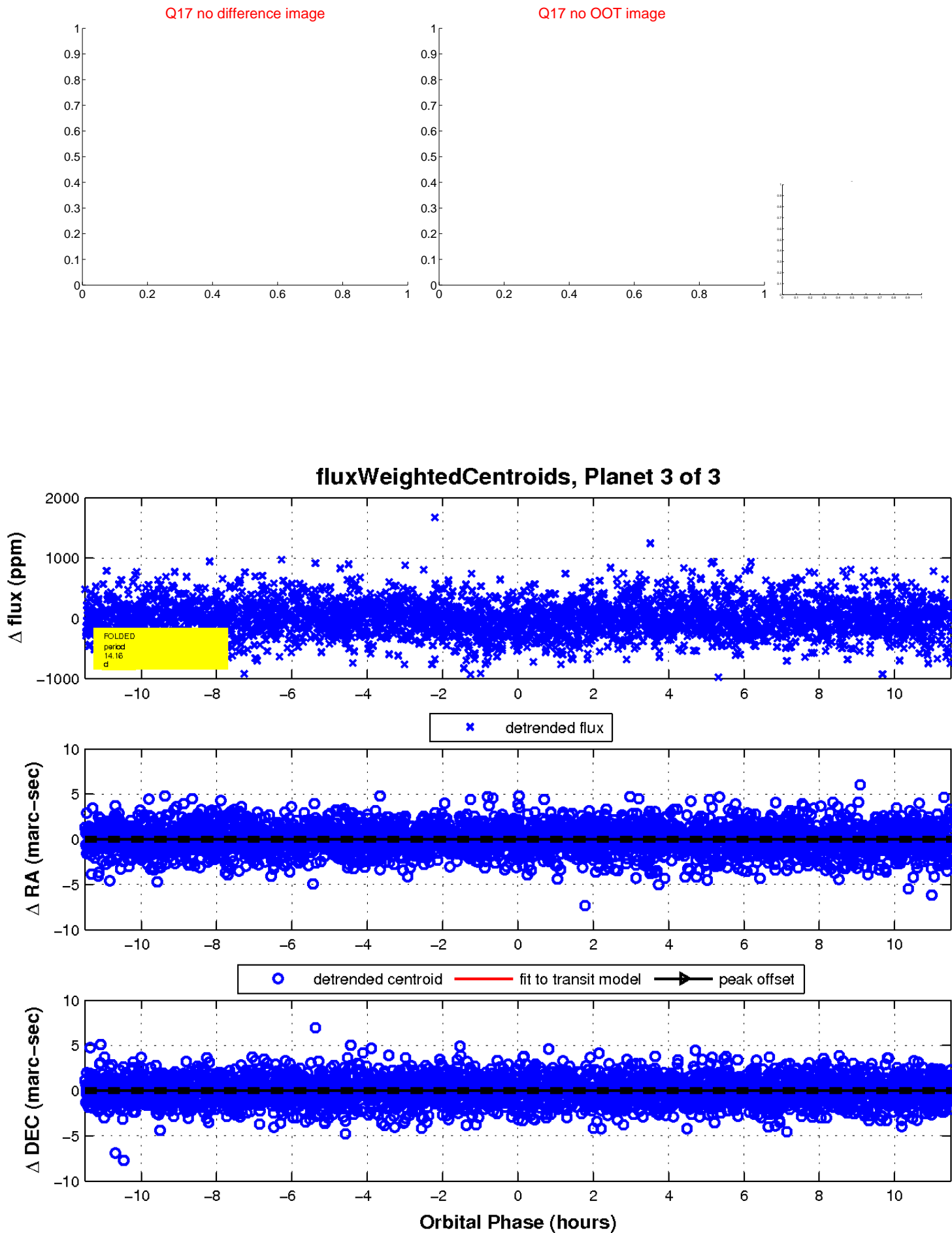
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

