

KIC 006448768

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})
006448768-01	OBS	6712.01	16.486796	131.604156	48497.2	7.066	5703.5	4346.7	2.10	6020	46.72	291.18
006448768-02	OBS	No	16.486794	138.098843	3902.9	13.479	518.2	488.5	2.10	6020	14.76	291.18
006448768-03	OBS	No	16.486202	131.683134	693.9	63.200	13.1	31.8	2.10	6020	10.68	291.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006448768-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_DV—HAS_SEC_TCE
006448768-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006448768-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—RESIDUAL_TCE

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.

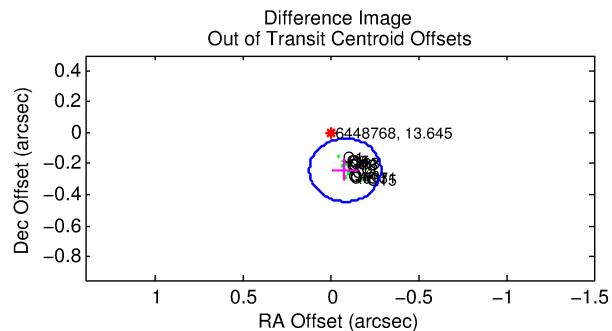
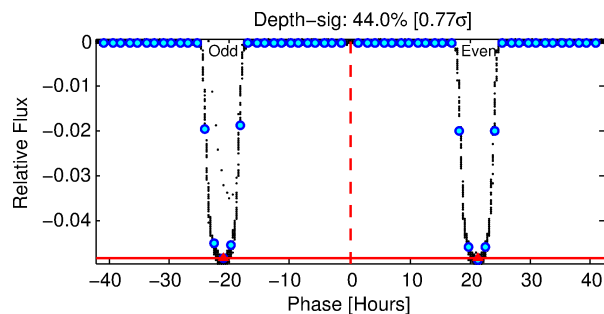
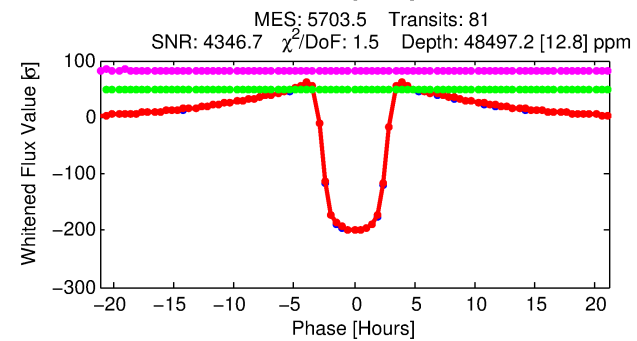
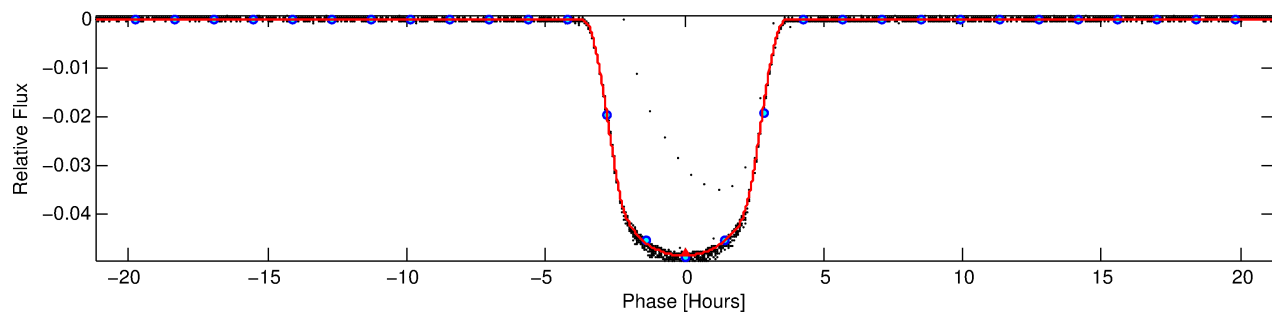
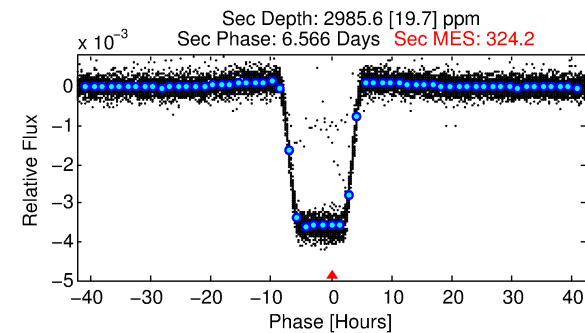
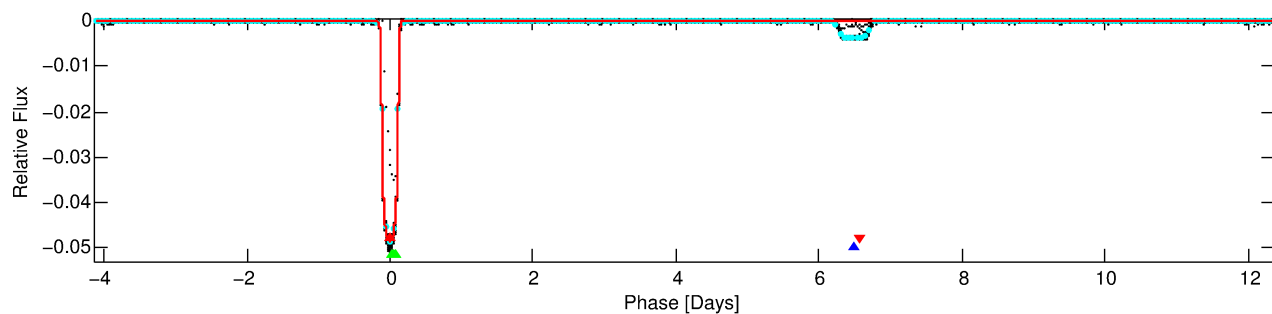
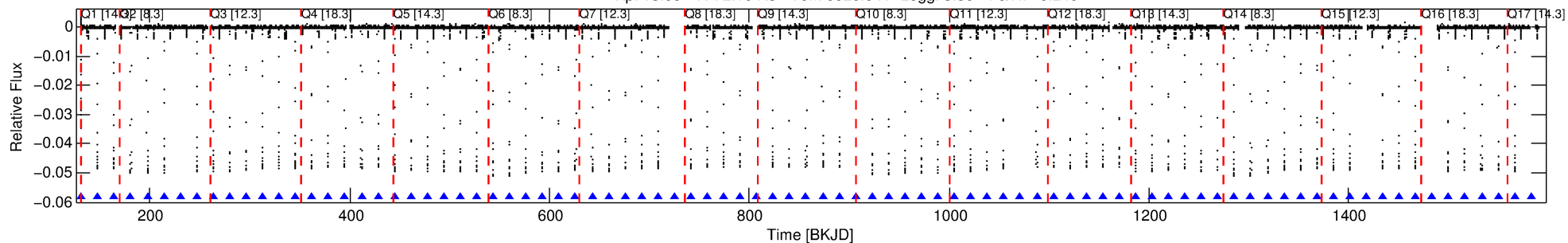
Ephemeris Match Information For 006448768-01

No Significant Match Found

DV One-Page Summary

KIC: 6448768 Candidate: 1 of 3 Period: 16.487 d
KOI: K06712.01 Corr: 1.000

Kp: 13.65 R*: 2.10 Rs Teff: 6020.0 K Logg: 3.86 Fe/H: -0.240



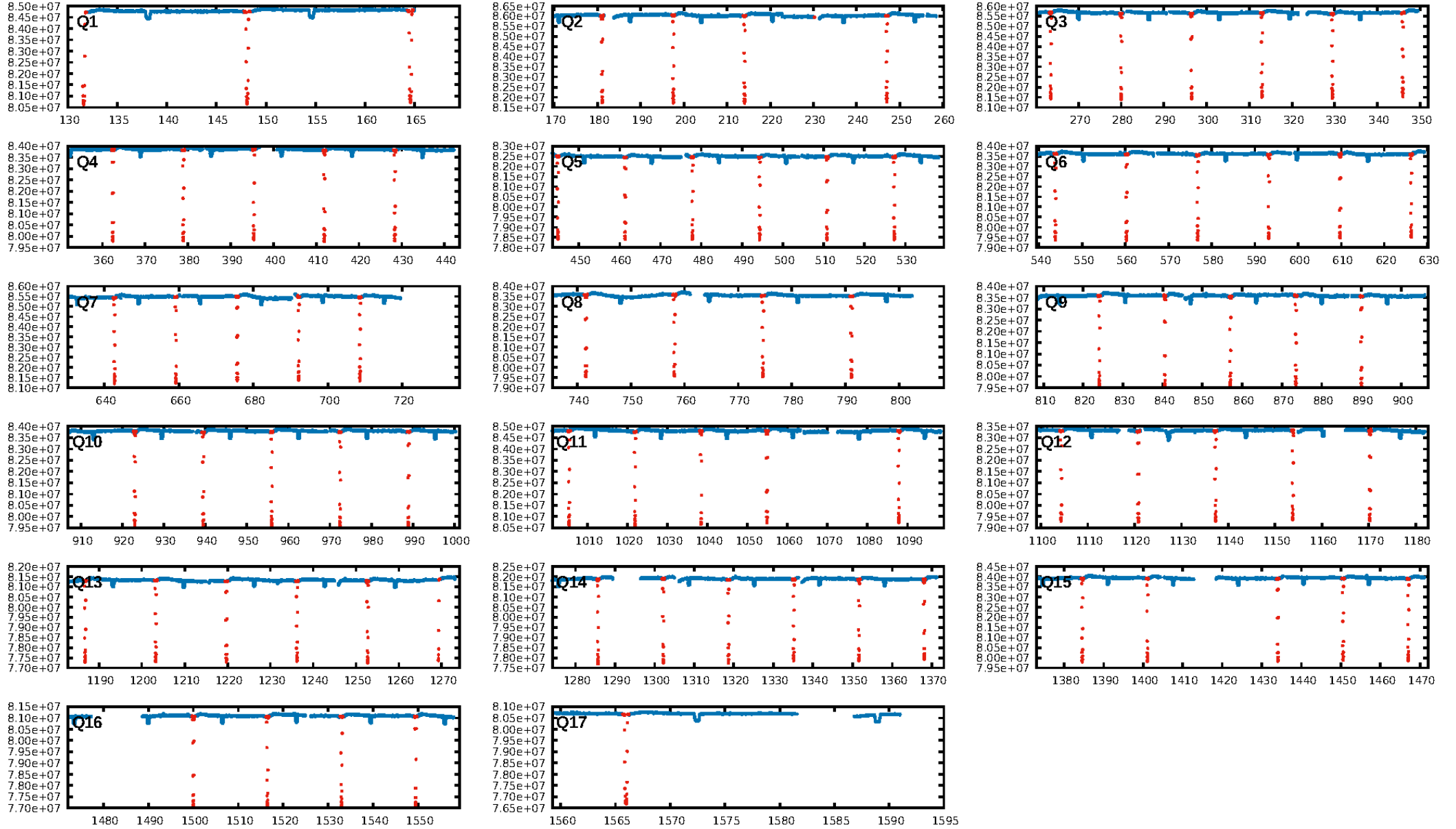
DV Fit Results:

Period = 16.48680 [0.00000] d
Epoch = 131.6042 [0.0000] BKJD
Rp/R* = 0.2042 [0.0000]
a/R* = 20.71 [0.02]
b = 0.32 [0.00]
Seff = 291.18 [116.56]
Teq = 1053 [105] K
Rp = 46.72 [13.86] Re
a = 0.1333 [0.0349] AU
Ag = 13.37 [5.30] [2.33 σ]
Teffp = 3114 [42] K [18.15 σ]

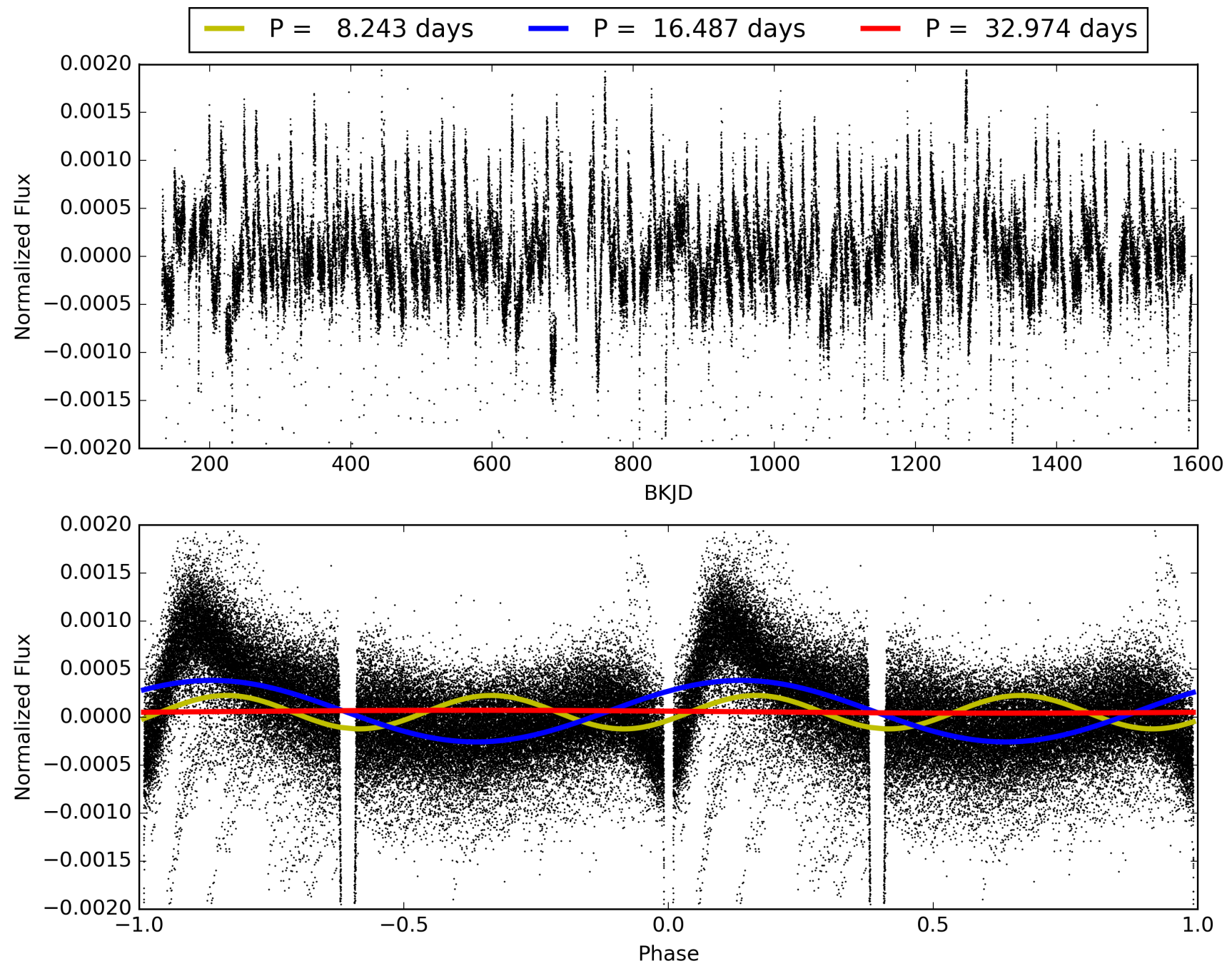
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [77/77]
GhostDiagnostic-chr: 6.255
Centroid-sig: 0.0%
Centroid-so: 0.162 arcsec [87.72 σ]
OotOffset-rm: 0.254 arcsec [3.74 σ]
KicOffset-rm: 0.133 arcsec [1.96 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 006448768-01, PDC Light Curves

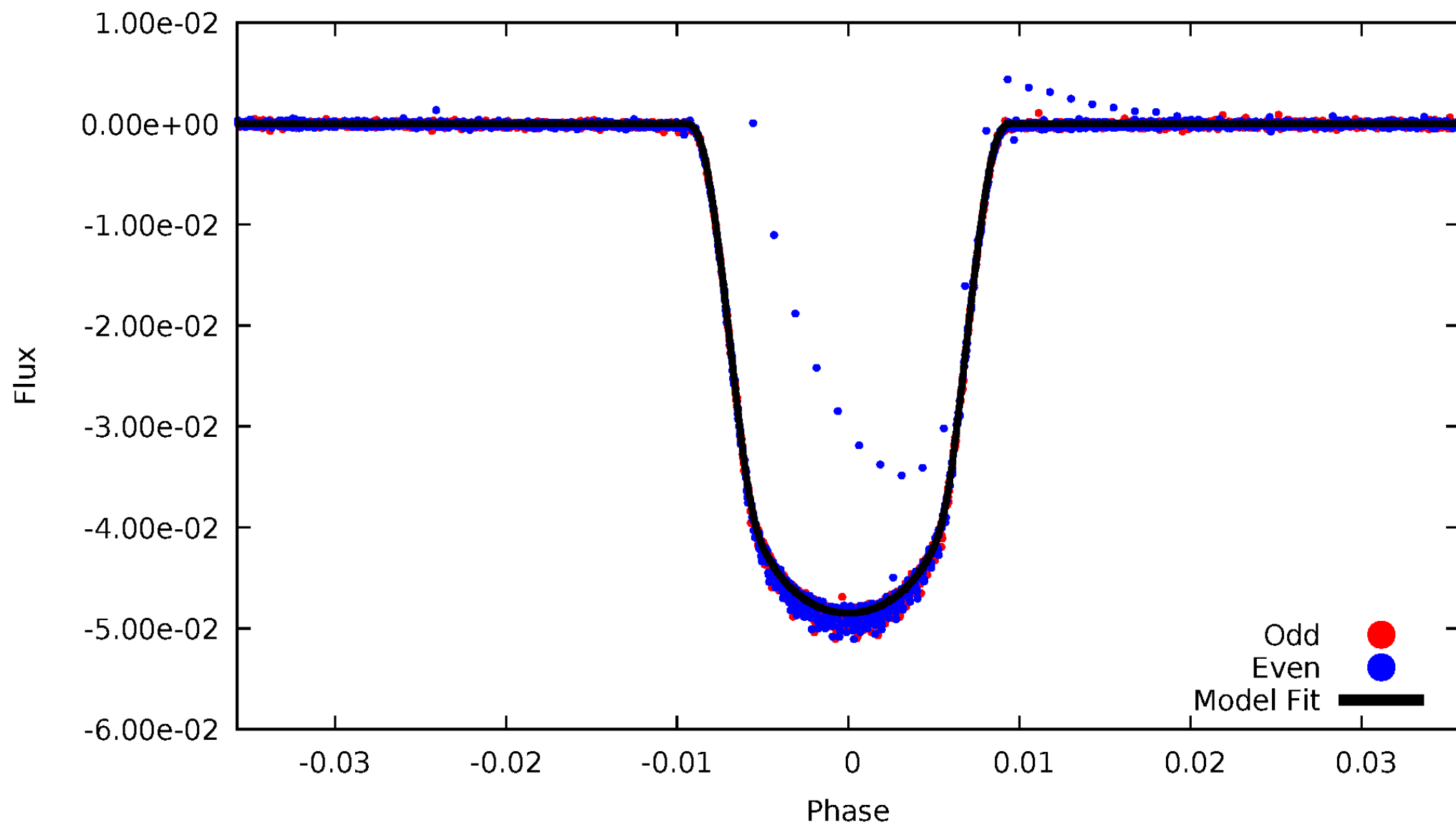


TCE 006448768-01



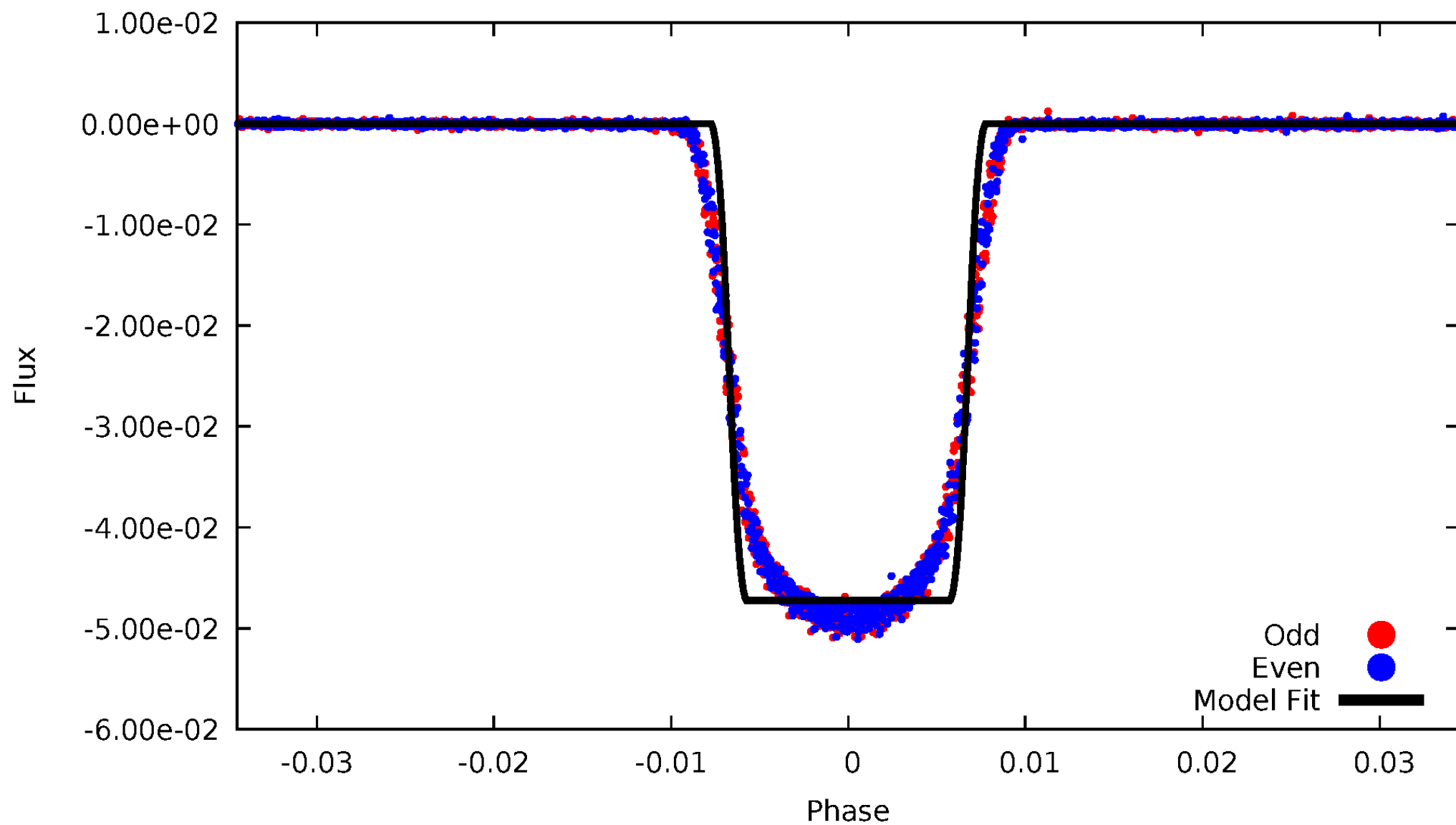
DV Odd/Even

TCE 006448768-01



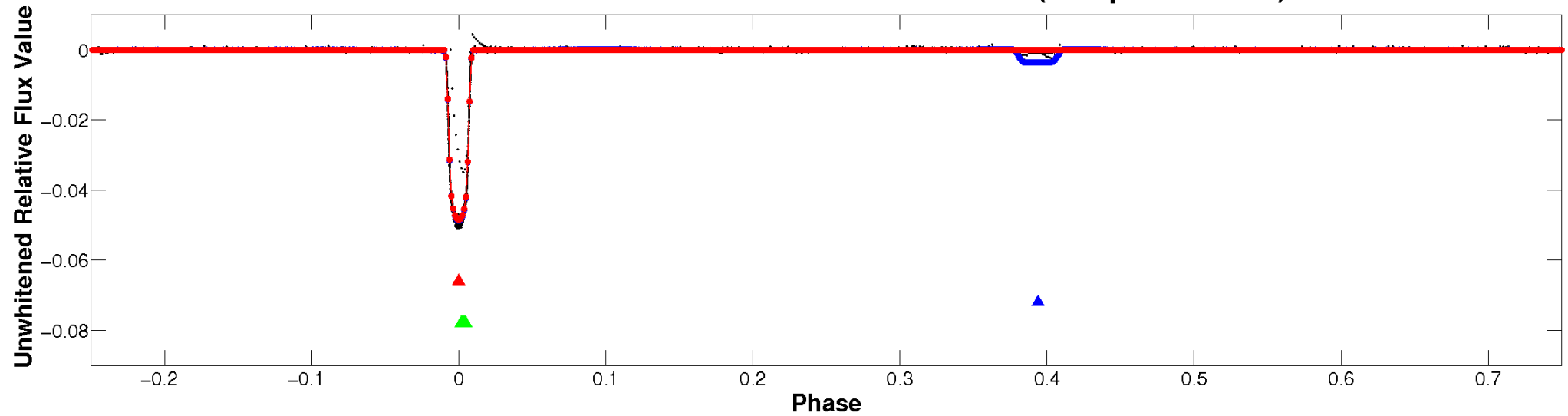
ALT Odd/Even

TCE 006448768-01

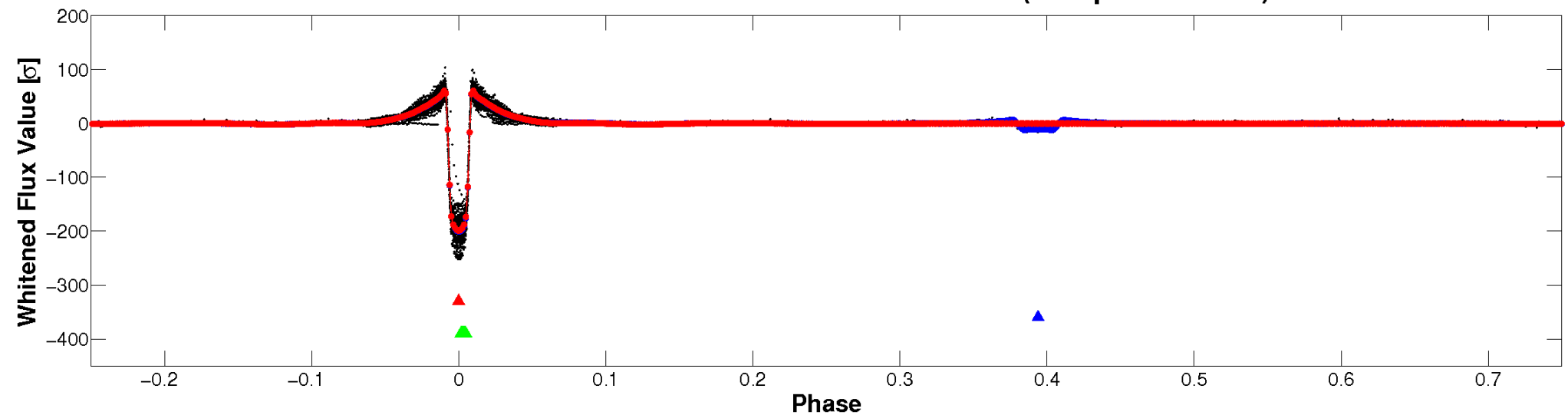


Non-Whitened Vs. Whitened Light Curve

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

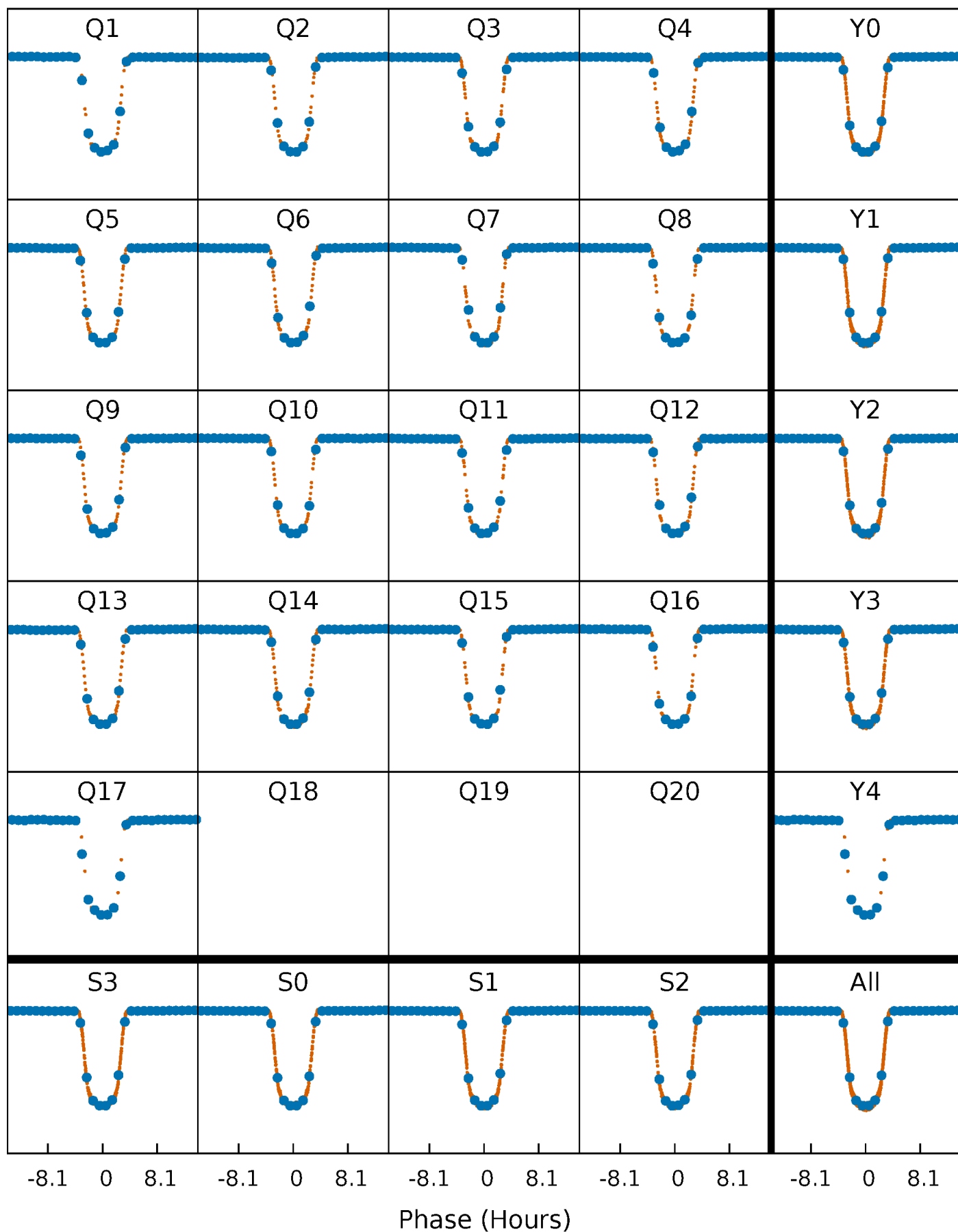


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



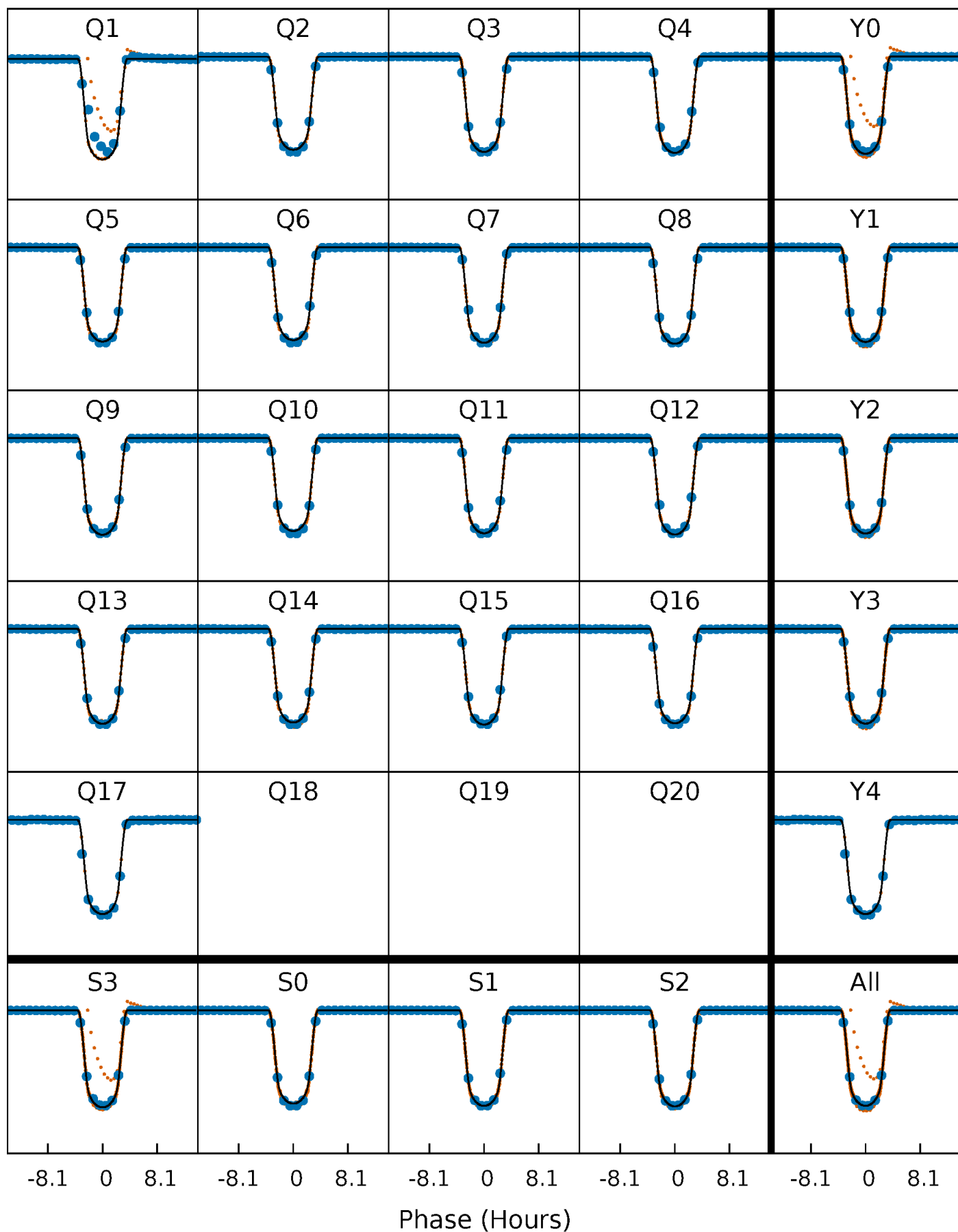
PDC Quarter-Phased Transit Curves

TCE 006448768-01 P= 16.486796 Days $T_0=131.604156$ (BKJD)



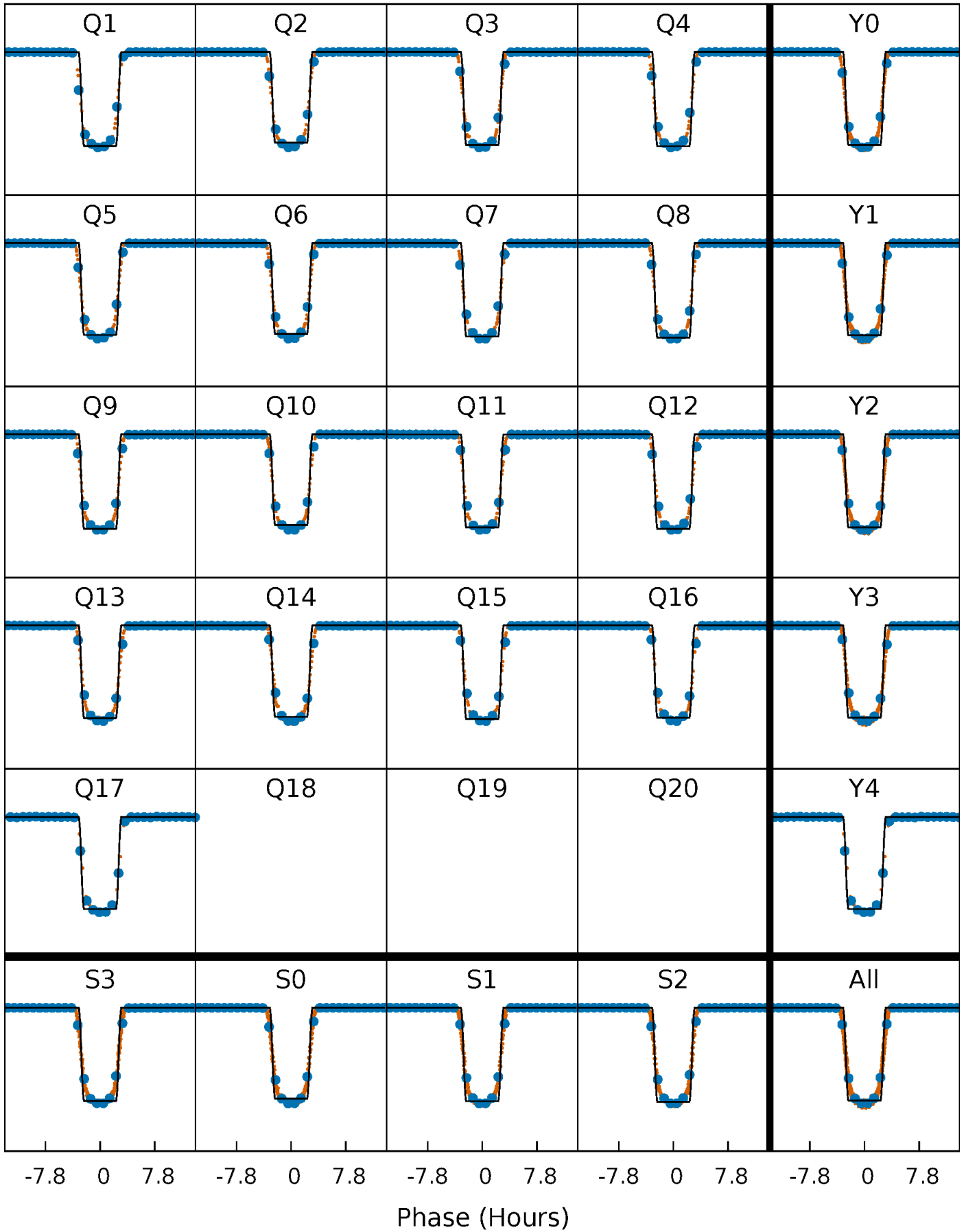
DV Quarter-Phased Transit Curves

TCE 006448768-01 P= 16.486796 Days $T_0=131.604156$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

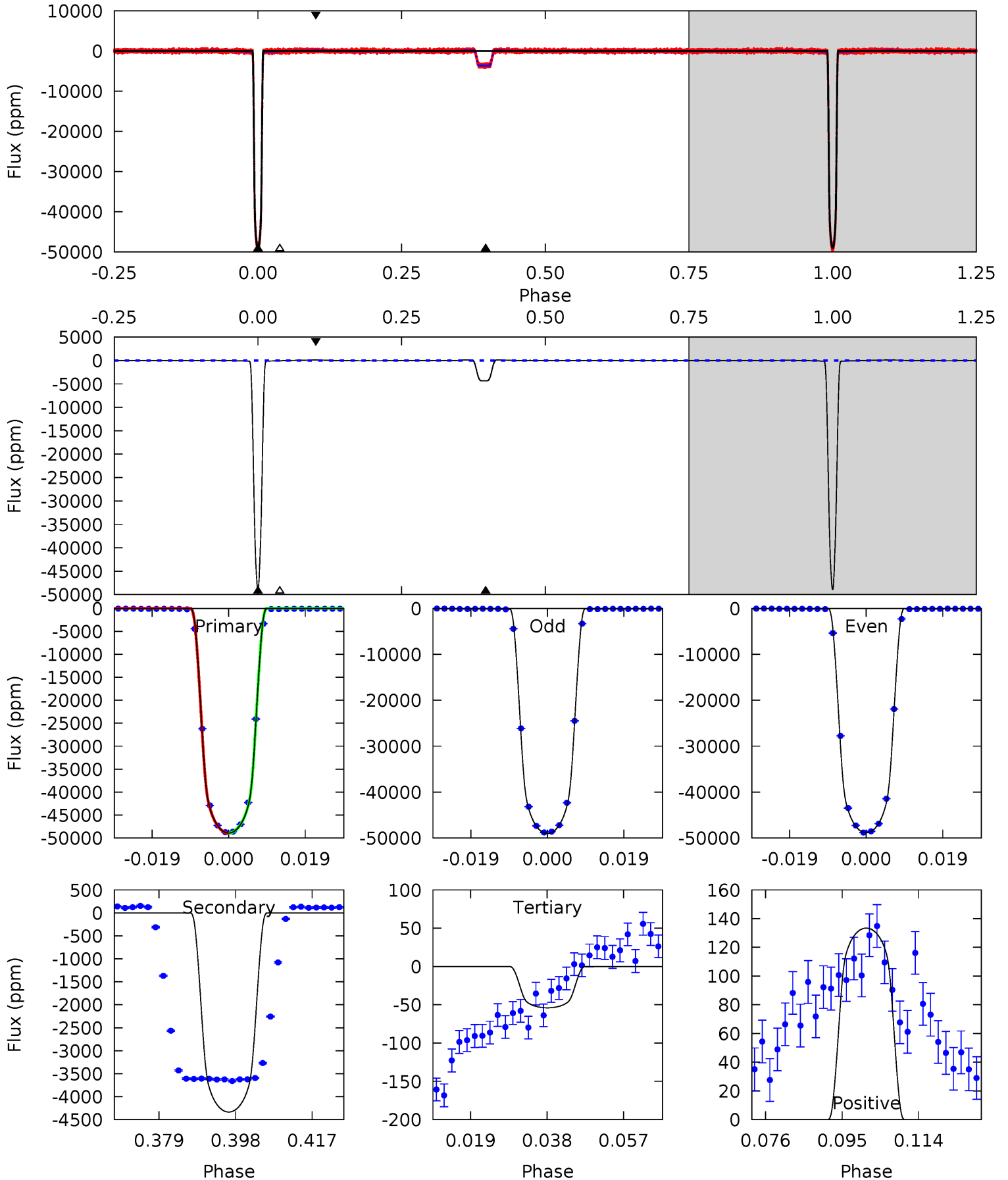
TCE 006448768-01 P= 16.486674 Days $T_0=131.609267$ (BKJD)



DV Model-Shift Uniqueness Test

006448768-01, P = 16.486796 Days, E = 115.117360 Days

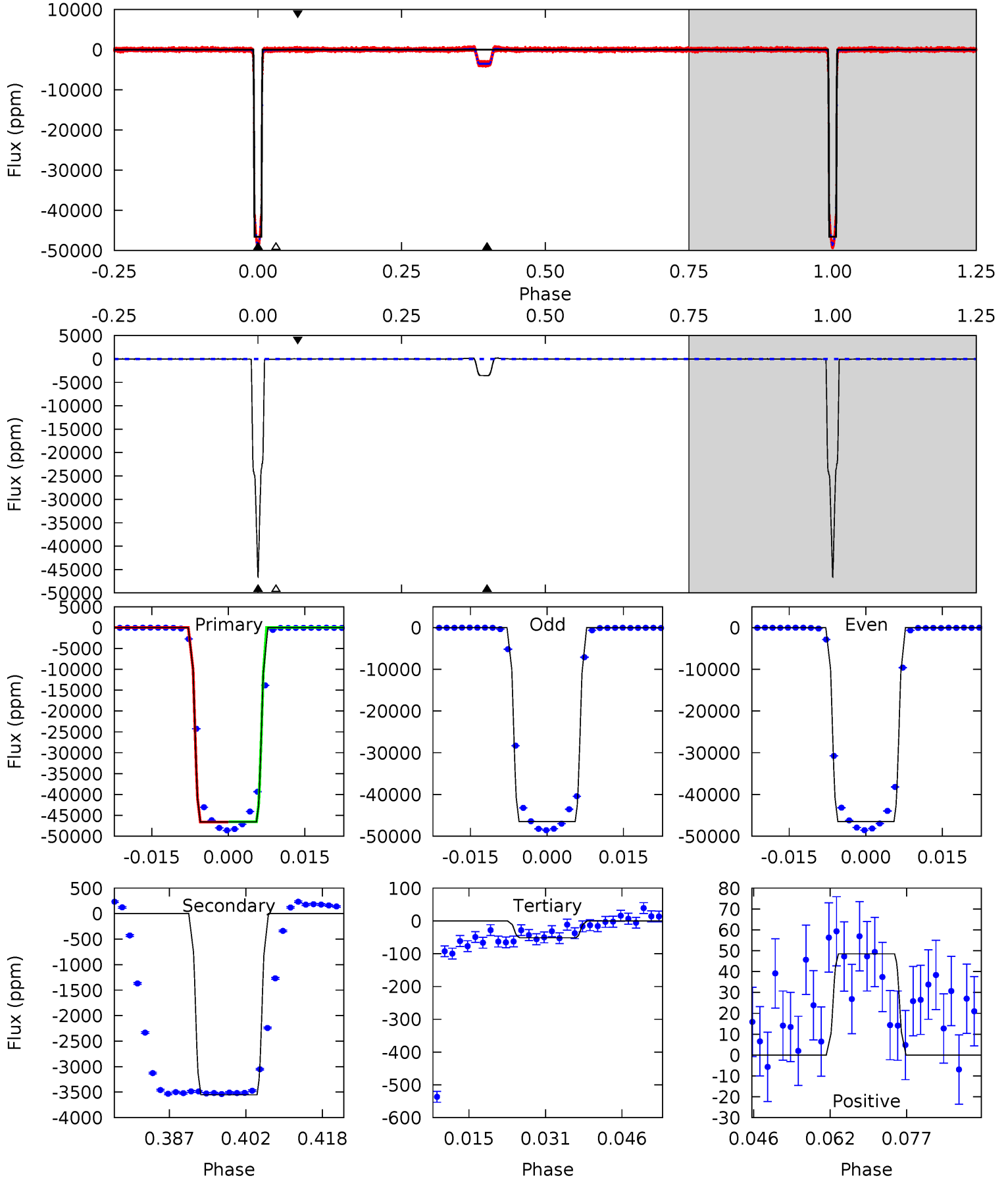
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8913	789.8	9.83	24.3	4.90	2.35	8.11	8903	8889	779.9	765.4	12.9	0.99	0.00	0



Alt Model-Shift Uniqueness Test

006448768-01, P = 16.486674 Days, E = 115.122593 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4263	325.2	4.70	4.44	4.94	2.42	13.0	4258	4259	320.5	320.7	0.36	1.00	0.00	0



Stellar Parameters For KIC 006448768

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6020^{+81}_{-81}	$3.860^{+0.224}_{-0.096}$	$-0.240^{+0.150}_{-0.150}$	$2.097^{+0.311}_{-0.622}$	$1.162^{+0.106}_{-0.172}$	$0.177^{+0.251}_{-0.052}$
	+1%/-1%	+6%/-2%	+62%/-62%	+15%/-30%	+9%/-15%	+142%/-29%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 006448768-01 / KOI 6712.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-4335 ± 5	$46.38^{+4.36}_{-6.73}$	1462^{+72}_{-95}	3797^{+35}_{-35}	20^{+6}_{-3}
Alt.	-3553 ± 11	$49.45^{+4.43}_{-7.70}$	1462^{+68}_{-104}	3595^{+32}_{-35}	14^{+5}_{-2}

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

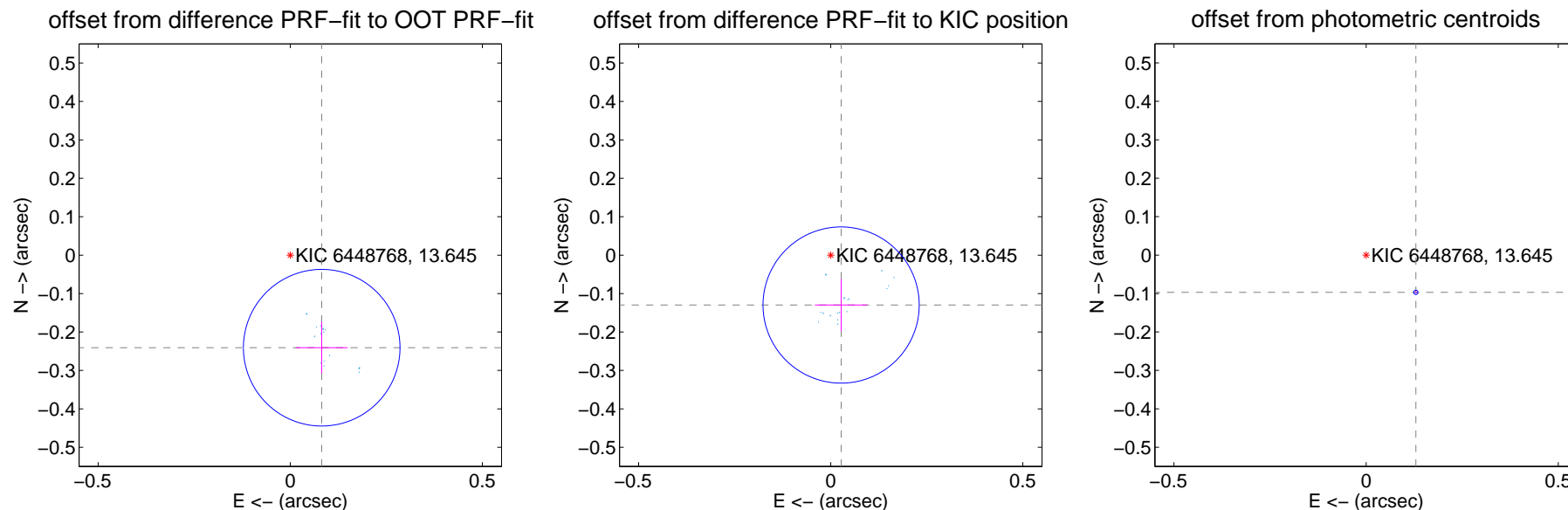
DV Centroid Data

Supplemental centroid analysis for 006448768-01. Kepler magnitude: 13.64. Transit SNR 4346.74

There are 17 quarters with good PRF difference image offsets

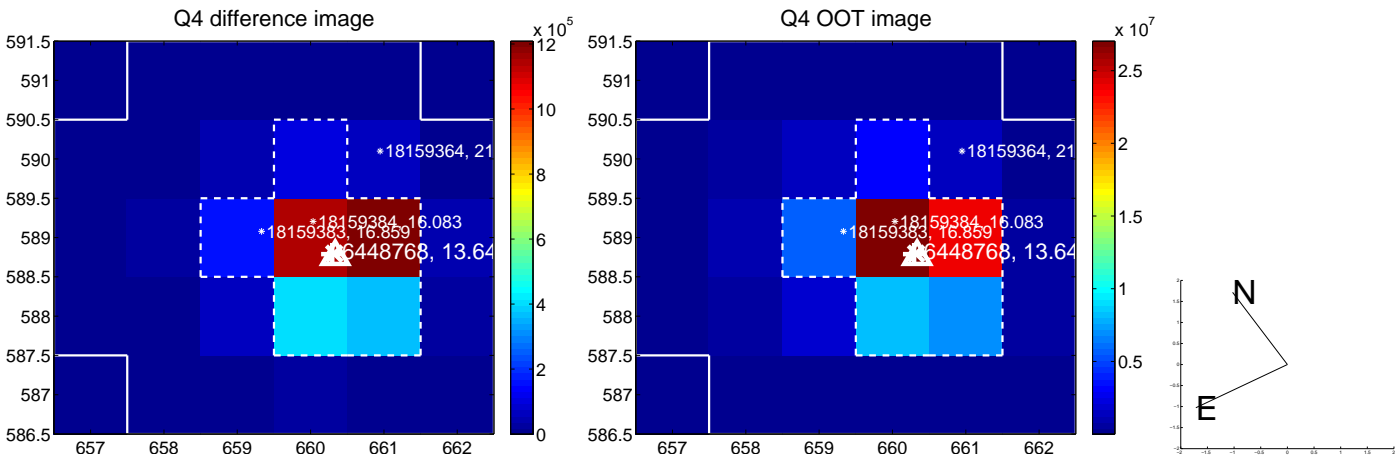
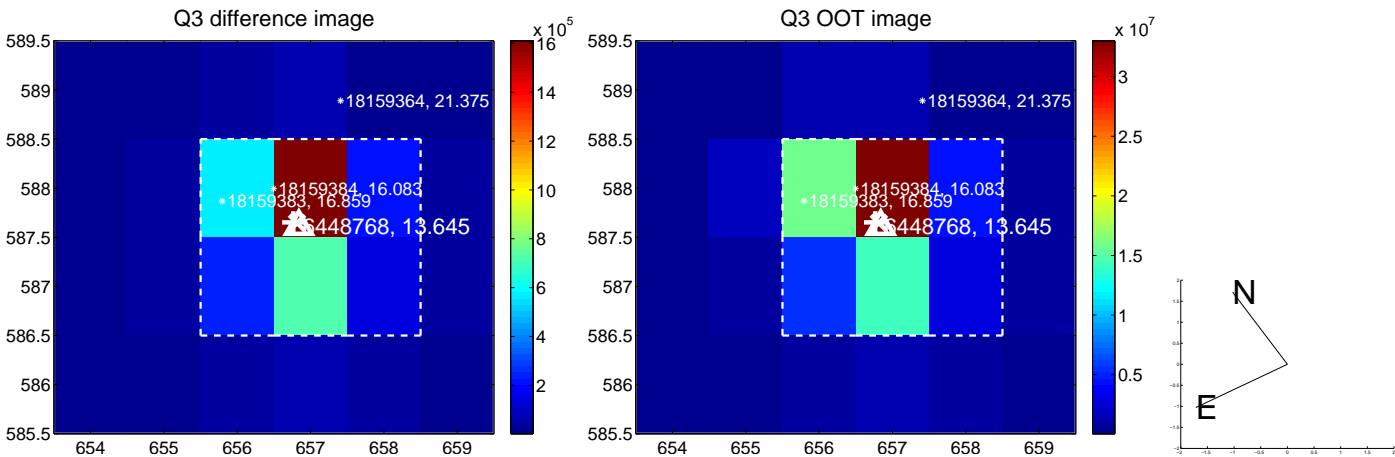
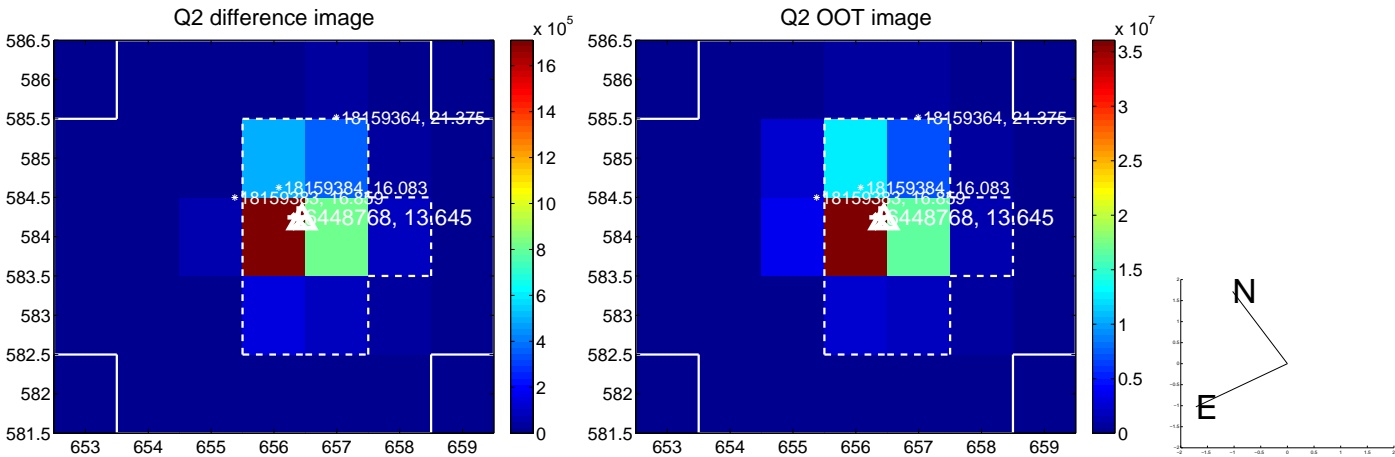
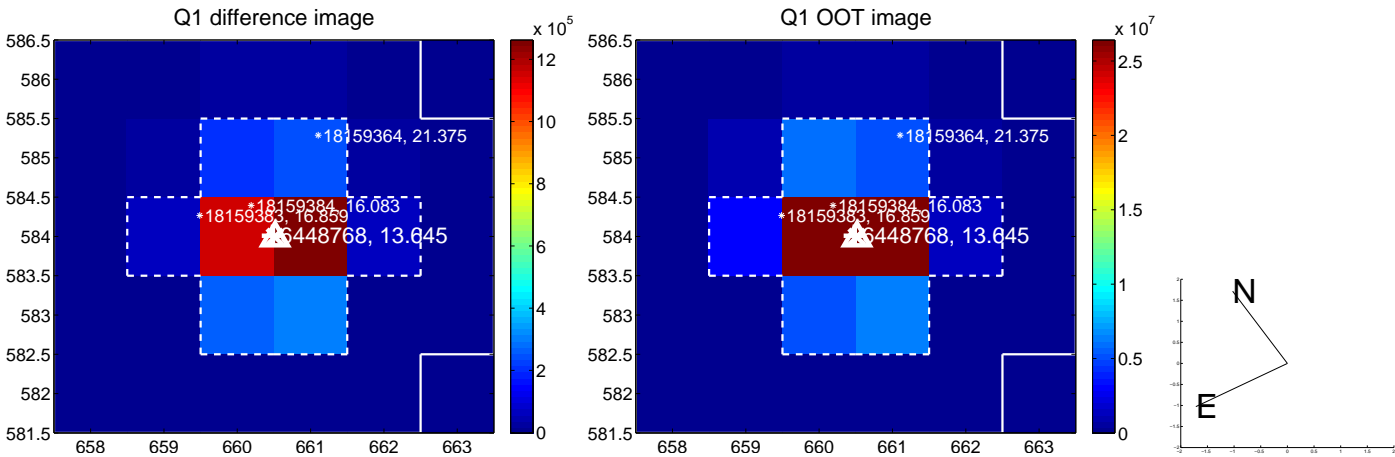
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.254 ± 0.068	3.74	-0.082 ± 0.067	-0.241 ± 0.068
PRF-fit source offset from KIC position	0.133 ± 0.068	1.96	-0.027 ± 0.068	-0.130 ± 0.068
photometric centroid source offset	0.16 ± 0.00	87.72	-0.13 ± 0.00	-0.10 ± 0.00

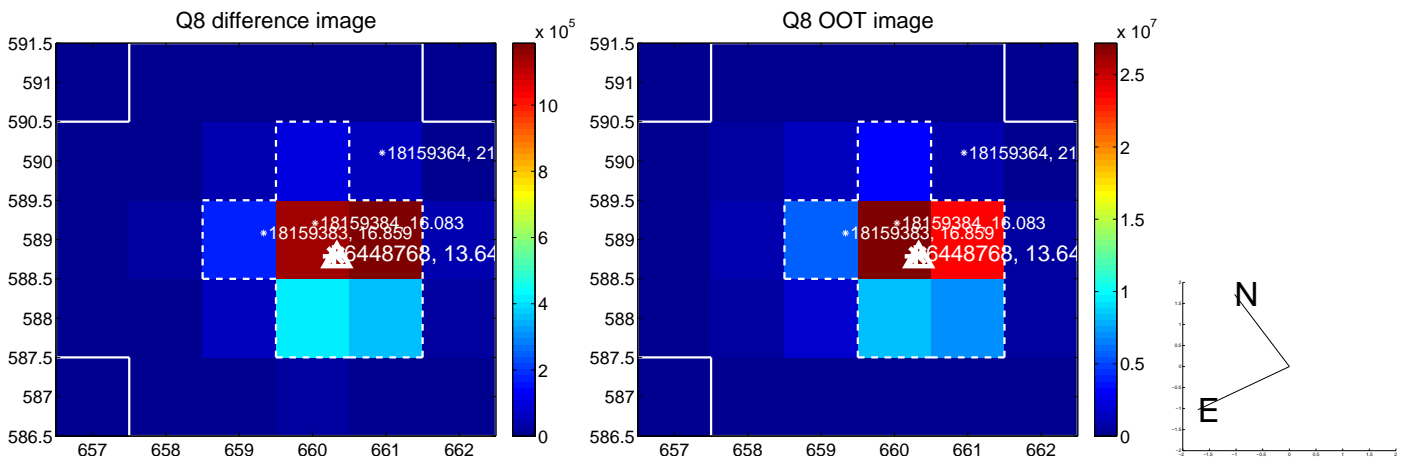
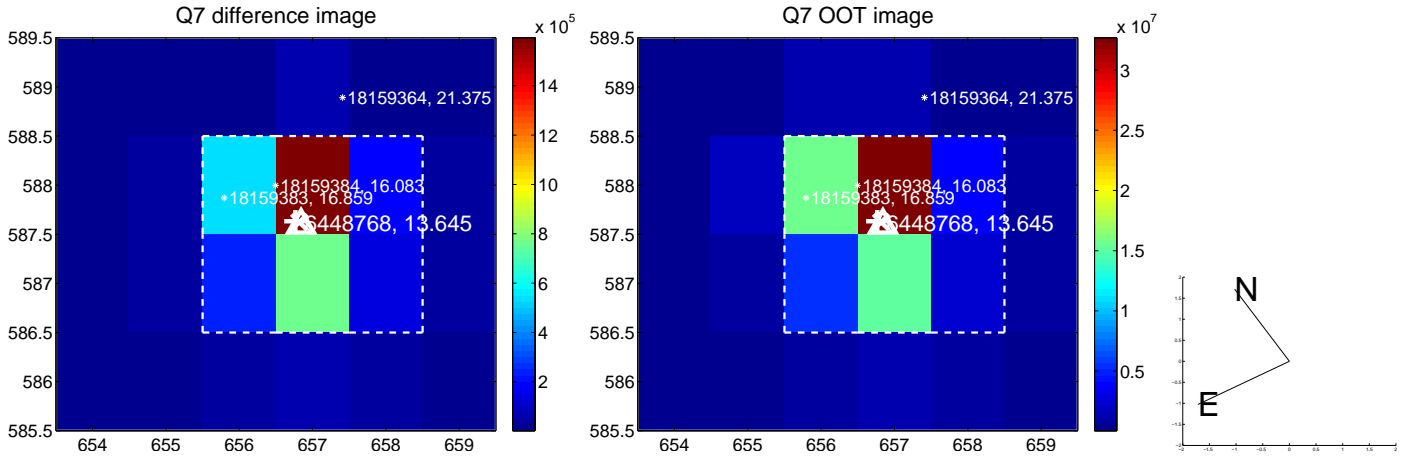
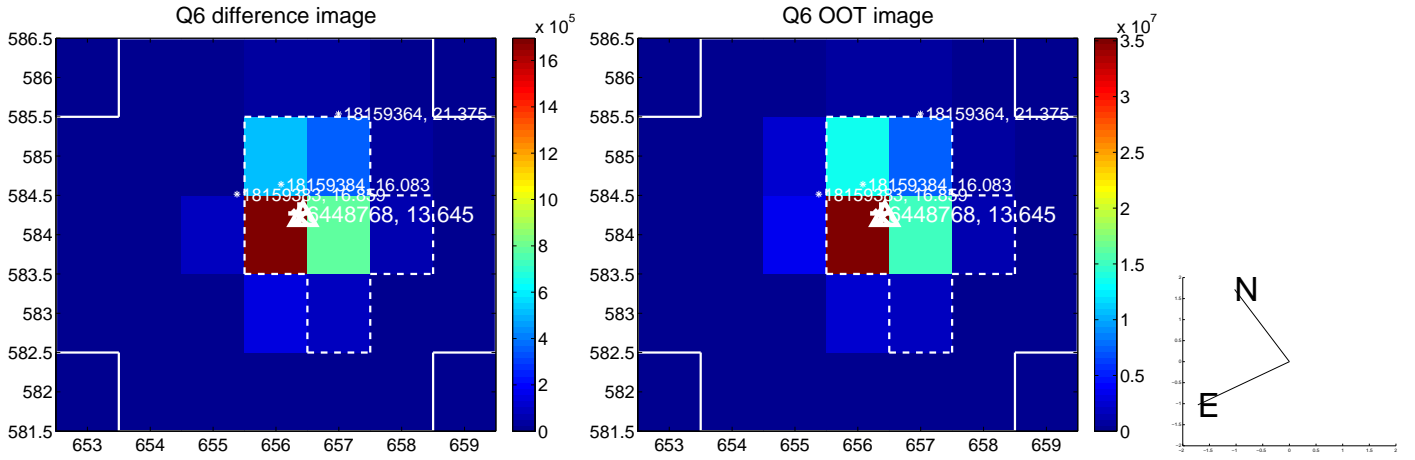
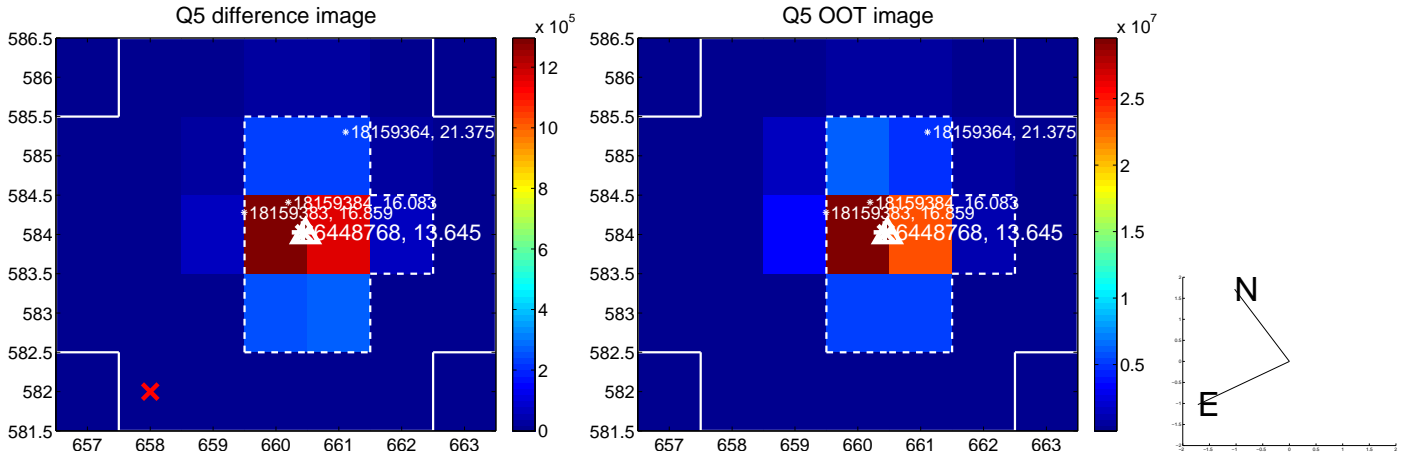


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

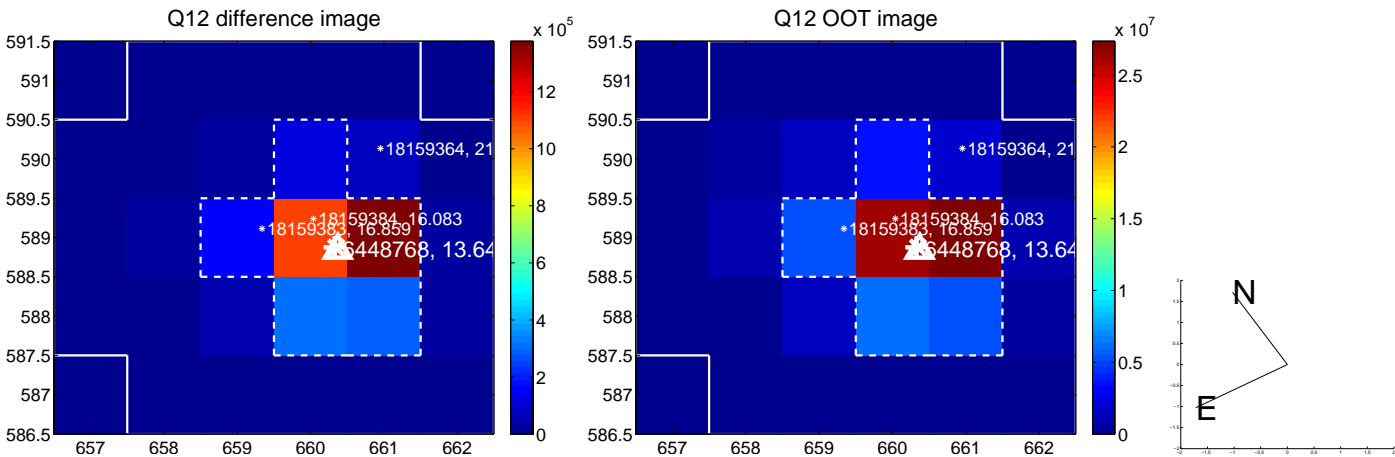
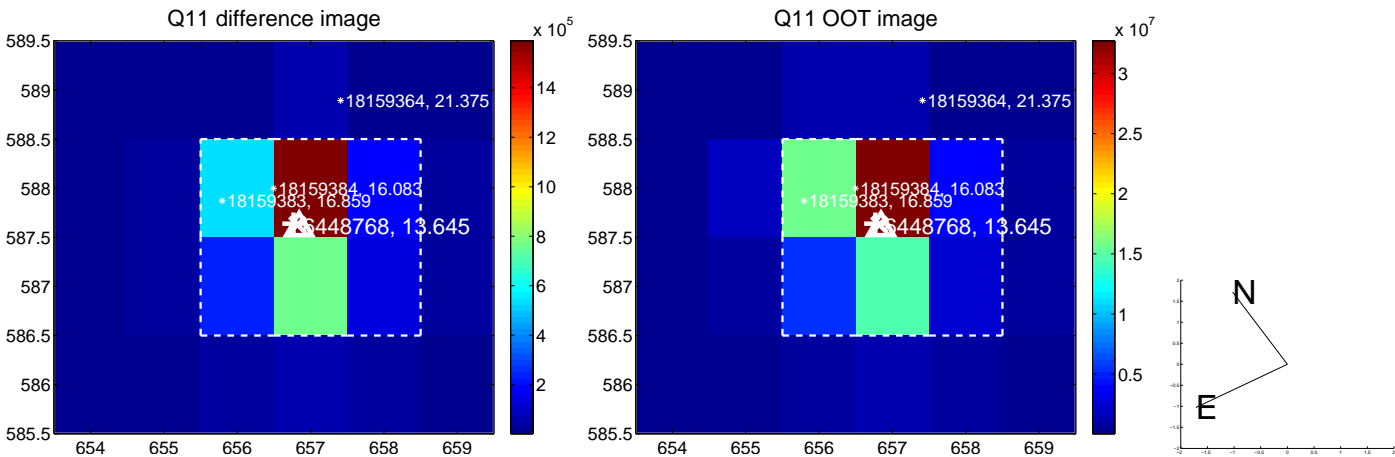
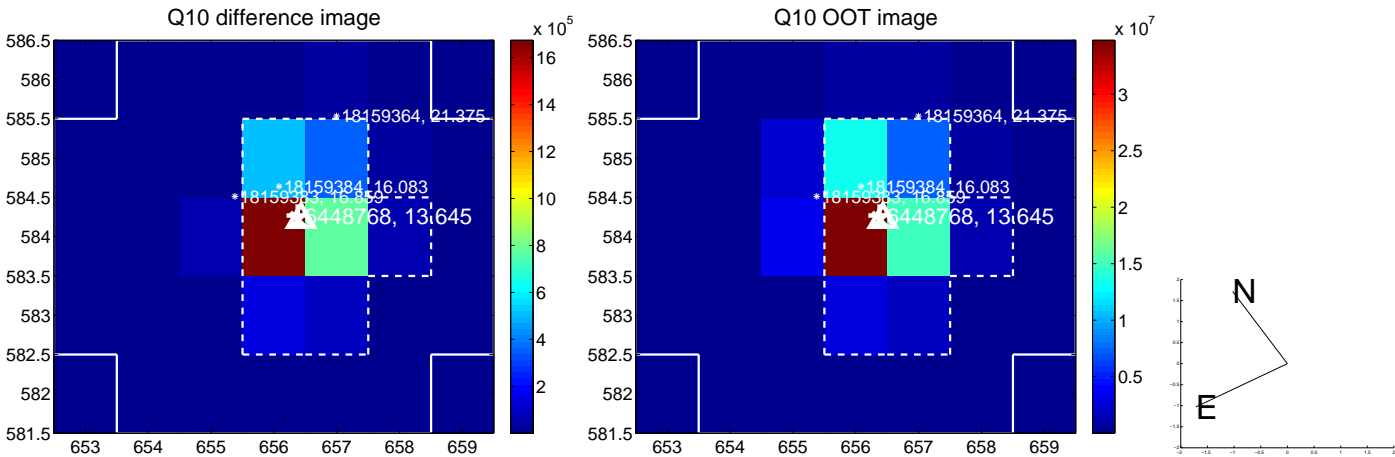
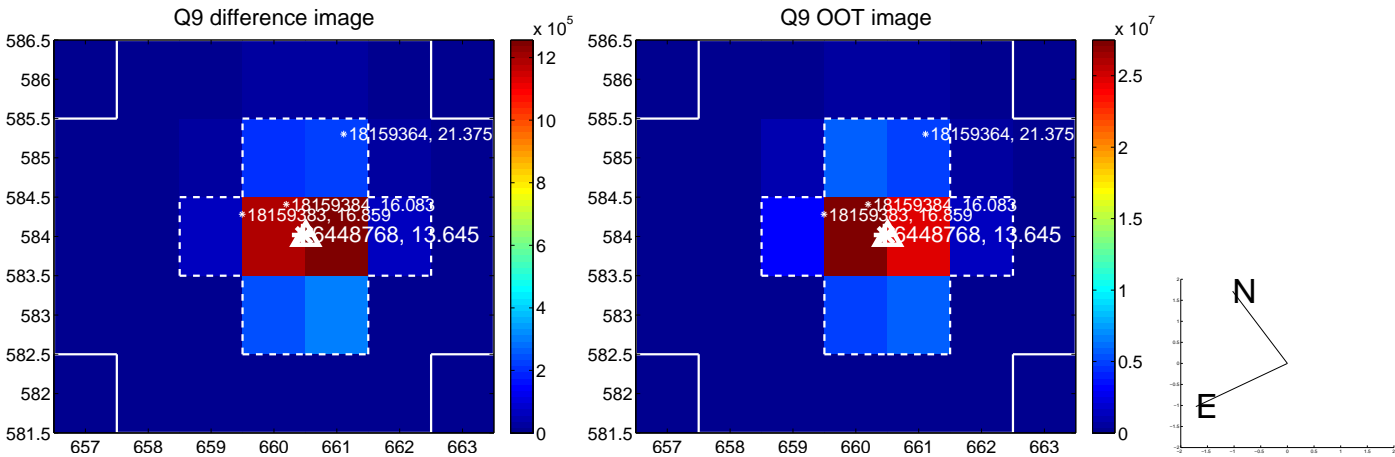
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



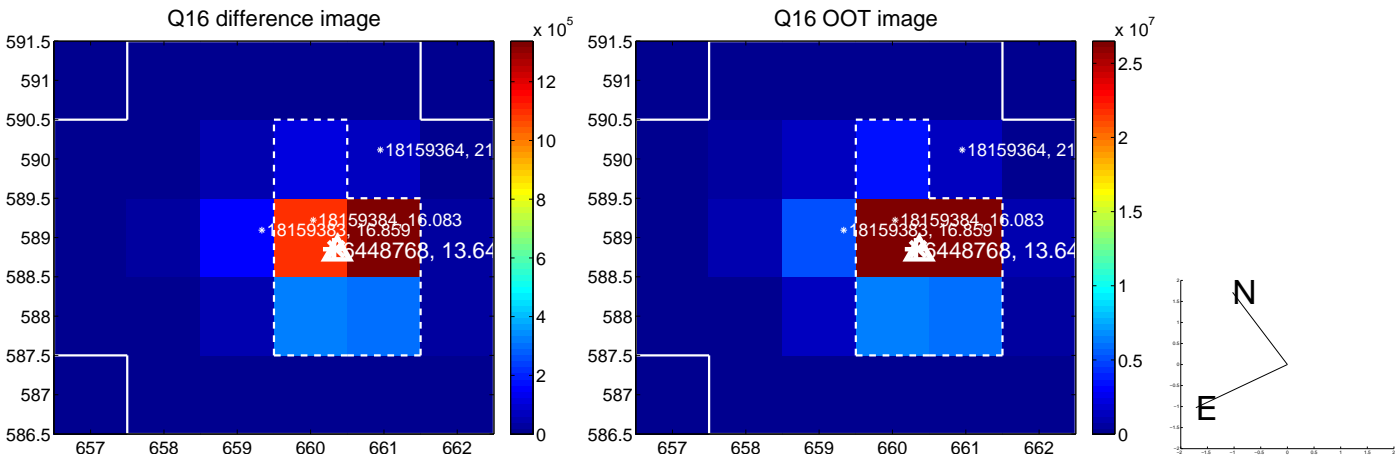
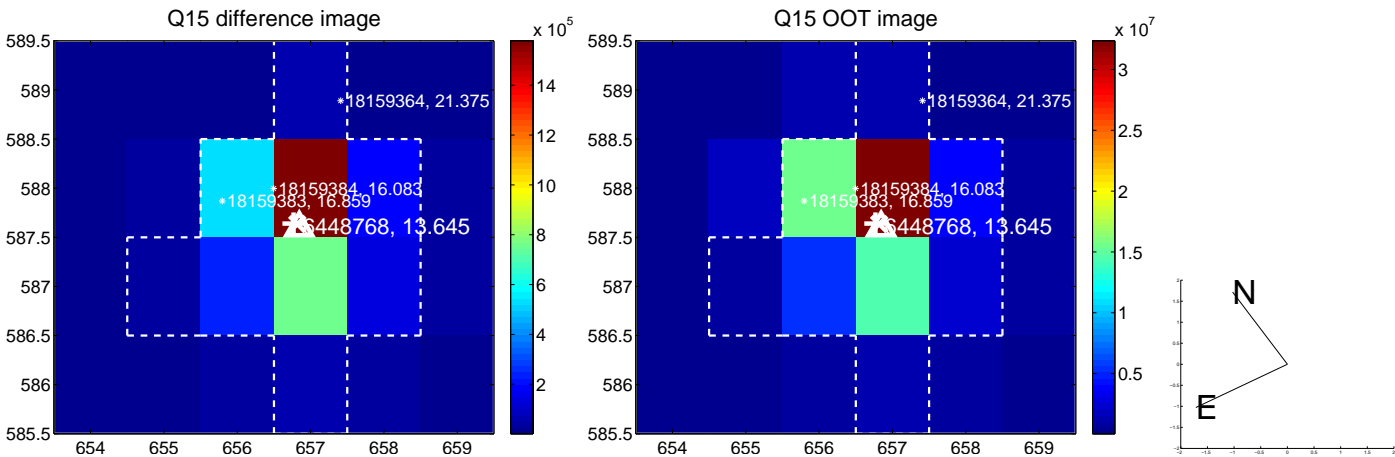
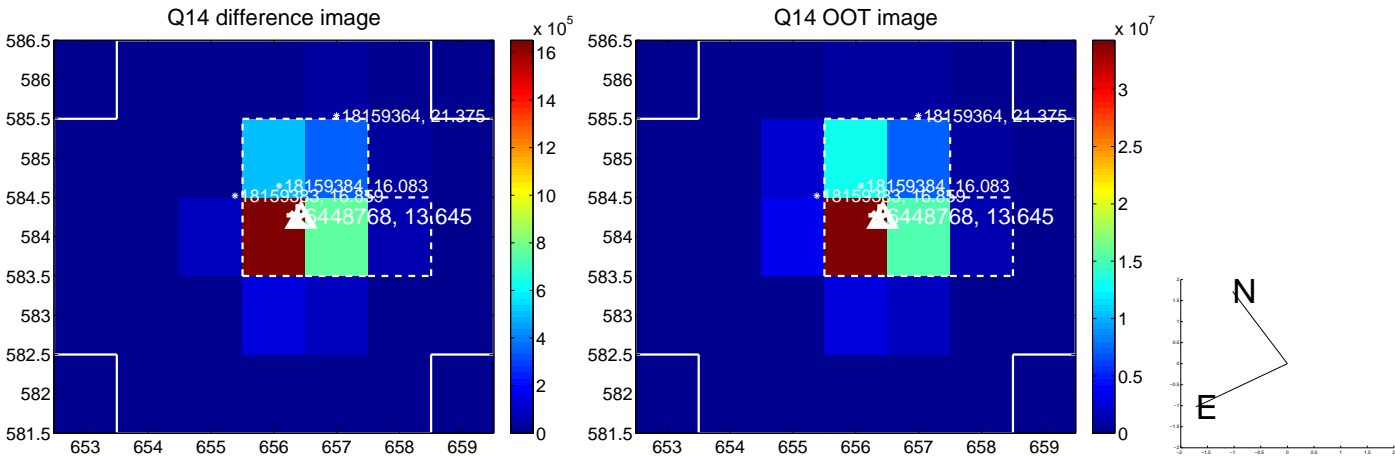
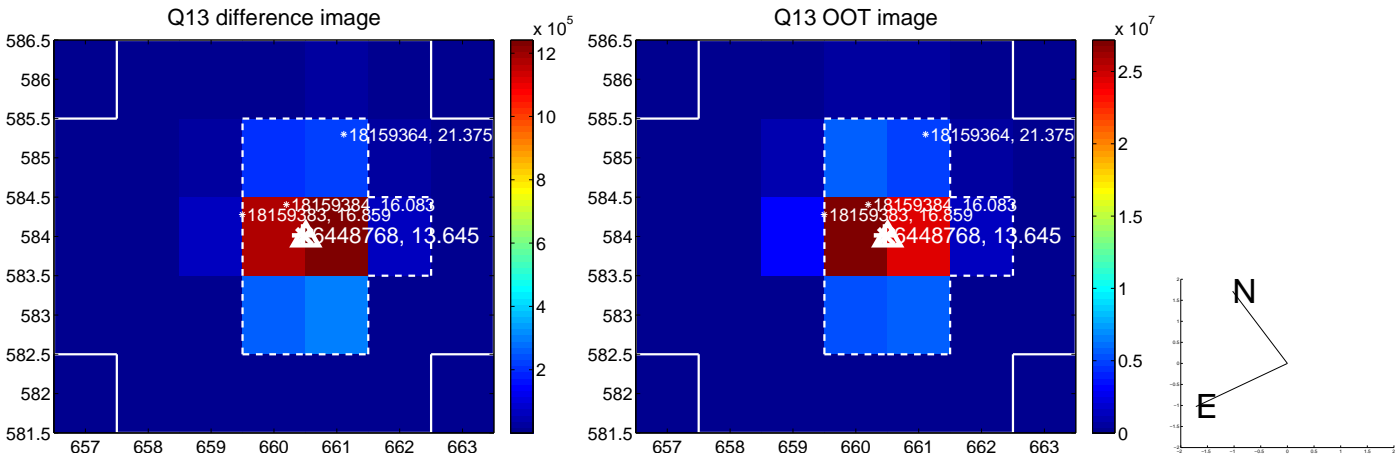
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



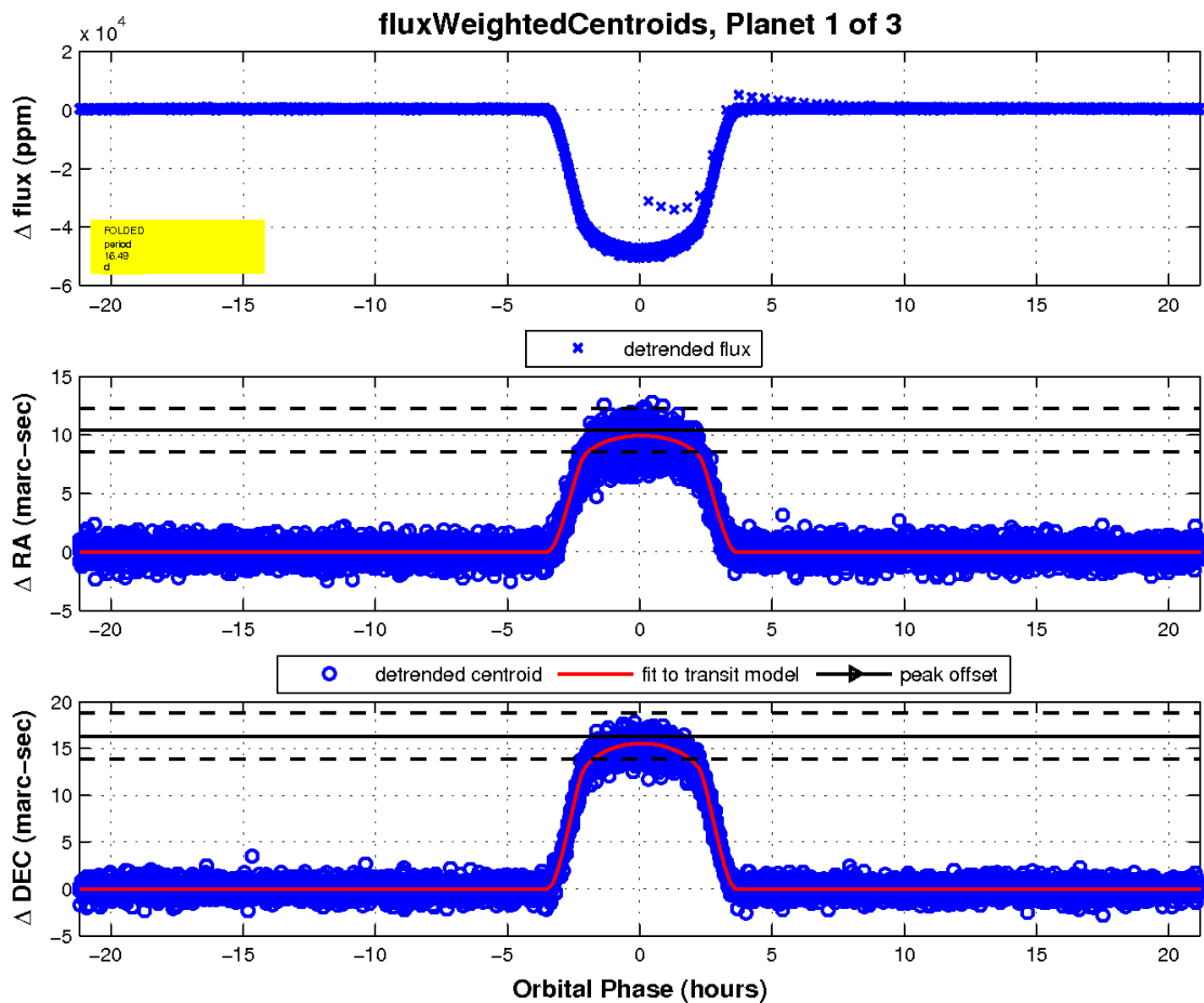
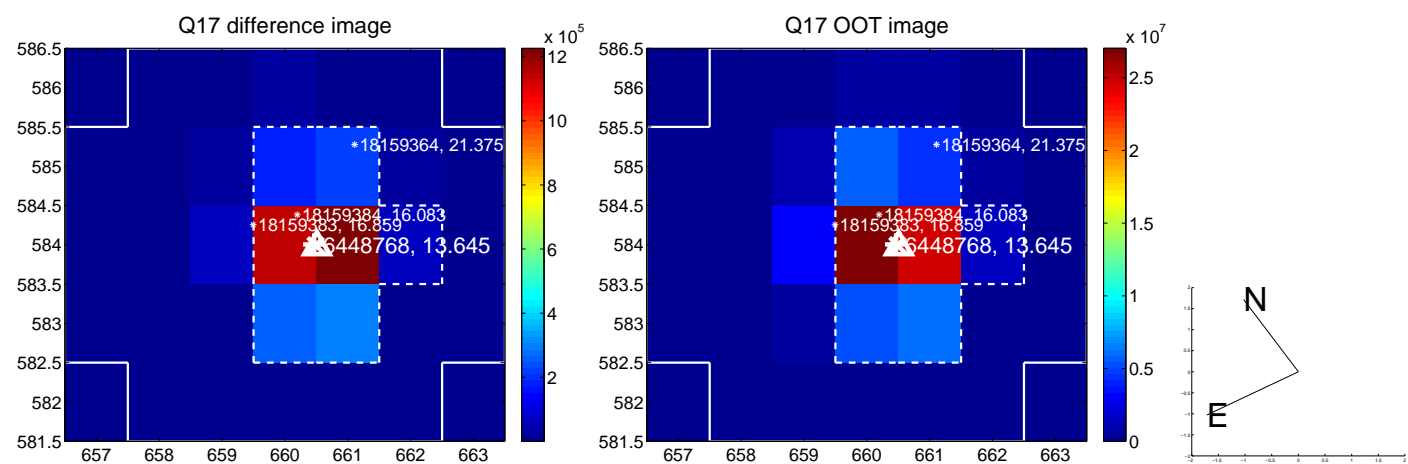
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

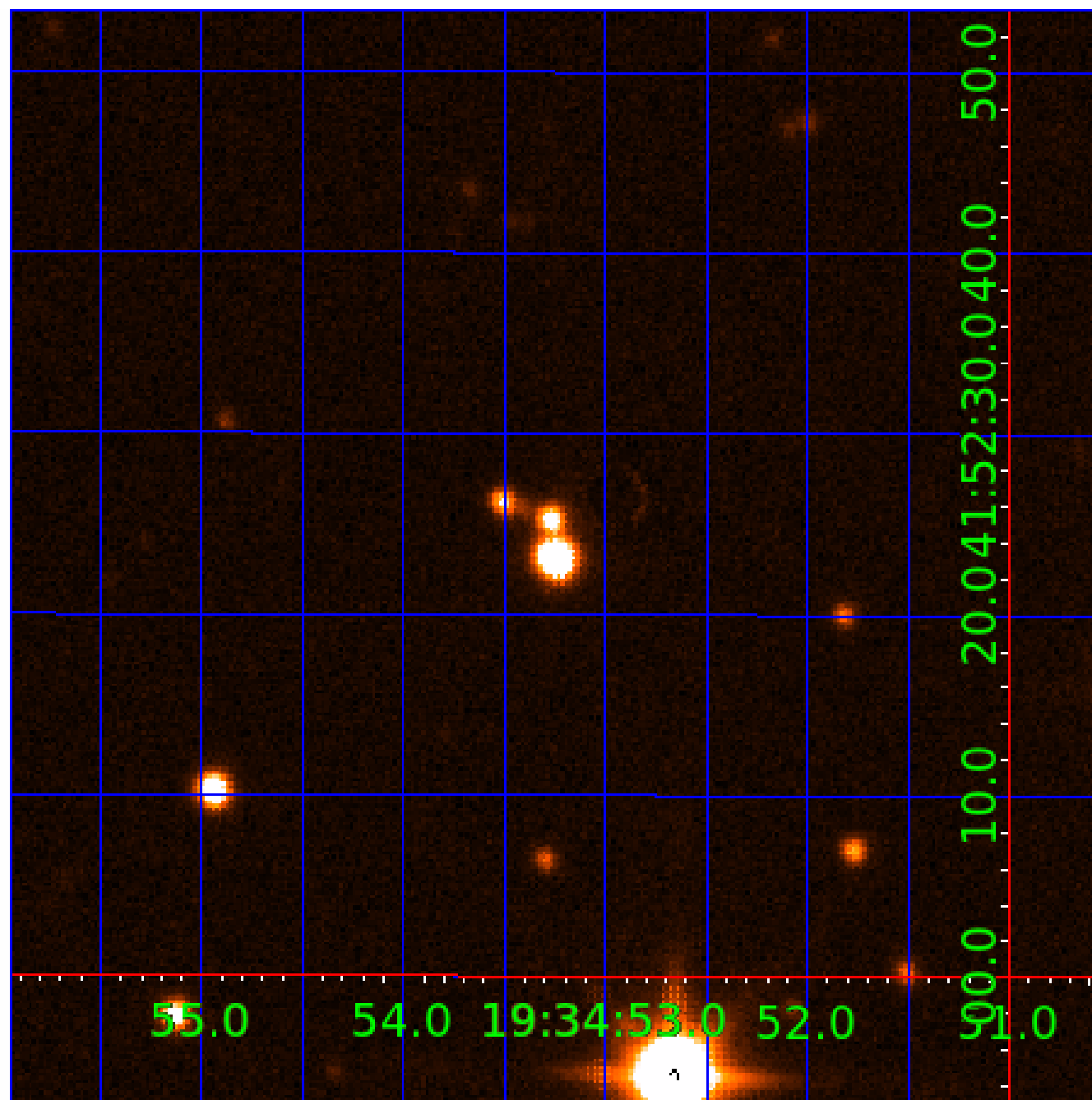


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006448768

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})
006448768-01	OBS	6712.01	16.486796	131.604156	48497.2	7.066	5703.5	4346.7	2.10	6020	46.72	291.18
006448768-02	OBS	No	16.486794	138.098843	3902.9	13.479	518.2	488.5	2.10	6020	14.76	291.18
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006448768-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_DV—HAS_SEC_TCE
006448768-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006448768-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—RESIDUAL_TCE

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.

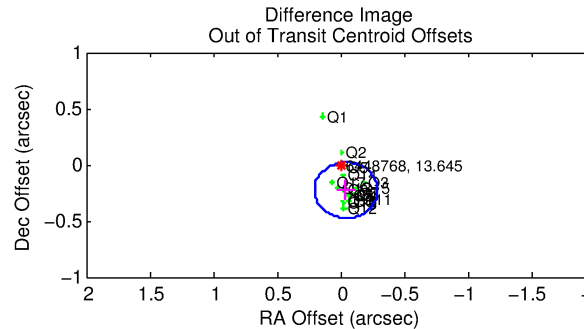
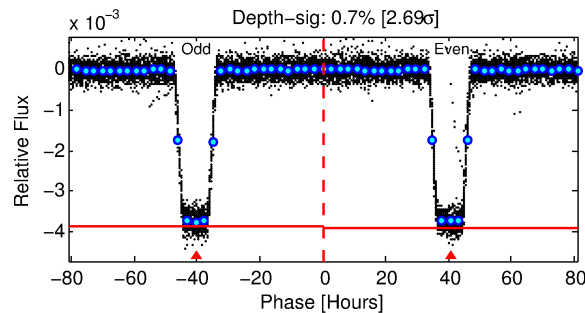
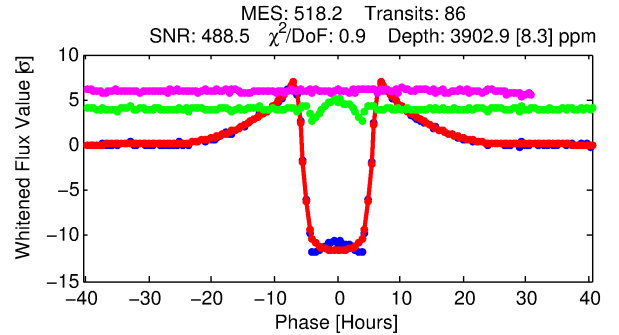
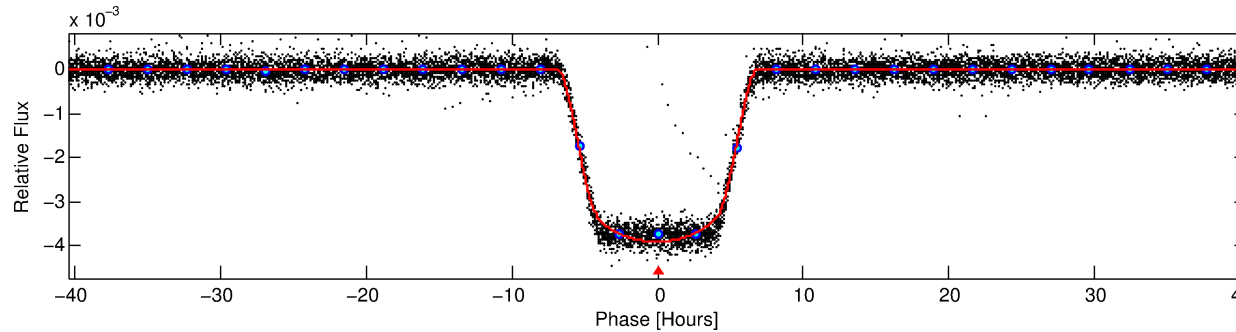
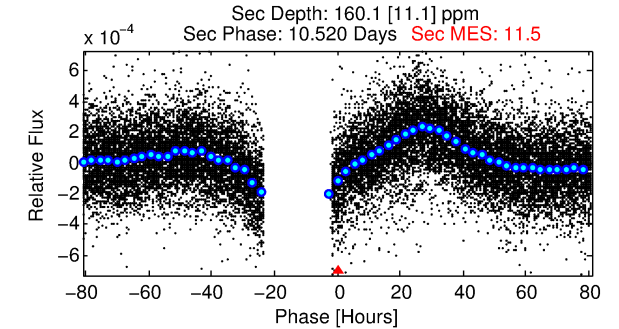
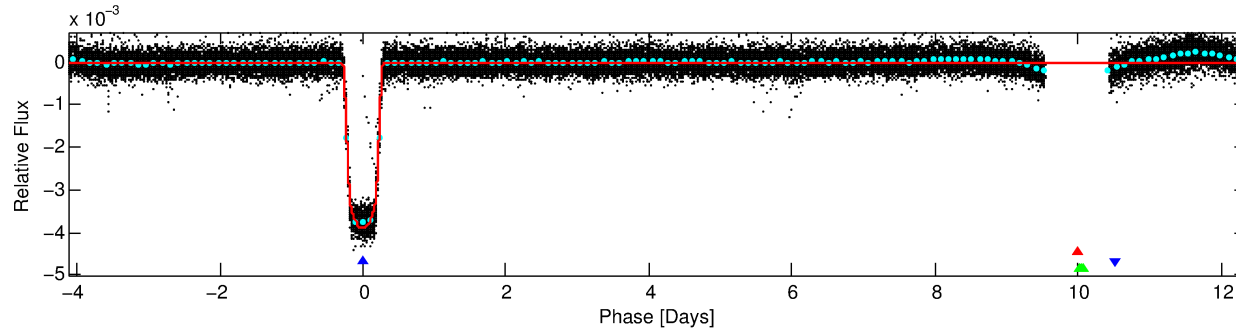
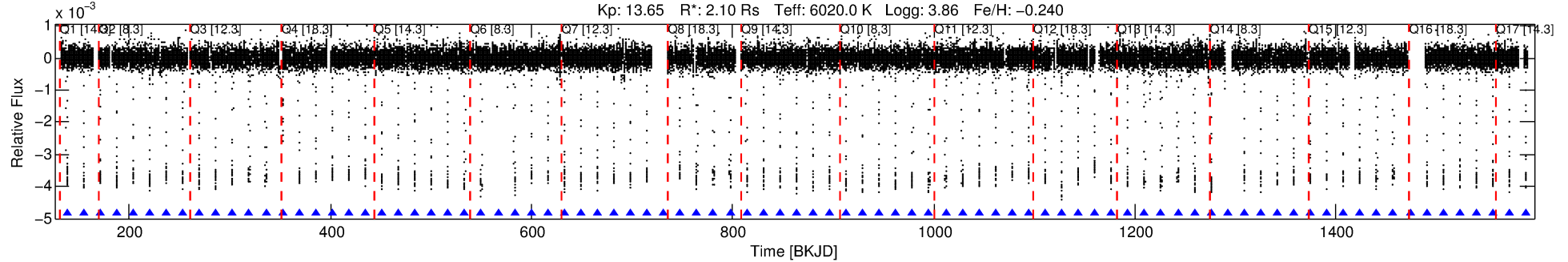
Ephemeris Match Information For 006448768-02

No Significant Match Found

DV One-Page Summary

KIC: 6448768 Candidate: 2 of 3 Period: 16.487 d
KOI: K06712 Corr: No Ephemeris Match

Kp: 13.65 R*: 2.10 Rs Teff: 6020.0 K Logg: 3.86 Fe/H: -0.240



DV Fit Results:

Period = 16.48679 [0.00001] d
Epoch = 138.0988 [0.0004] BKJD
Rp/R* = 0.0645 [0.0001]
a/R* = 6.25 [0.03]
b = 0.83 [0.00]
Seff = 291.18 [116.56]
Teq = 1053 [105] K
Rp = 14.76 [4.38] Re
a = 0.1333 [0.0349] AU
Ag = 7.19 [2.90] [2.14σ]
Teffp = 2667 [59] K [13.38σ]

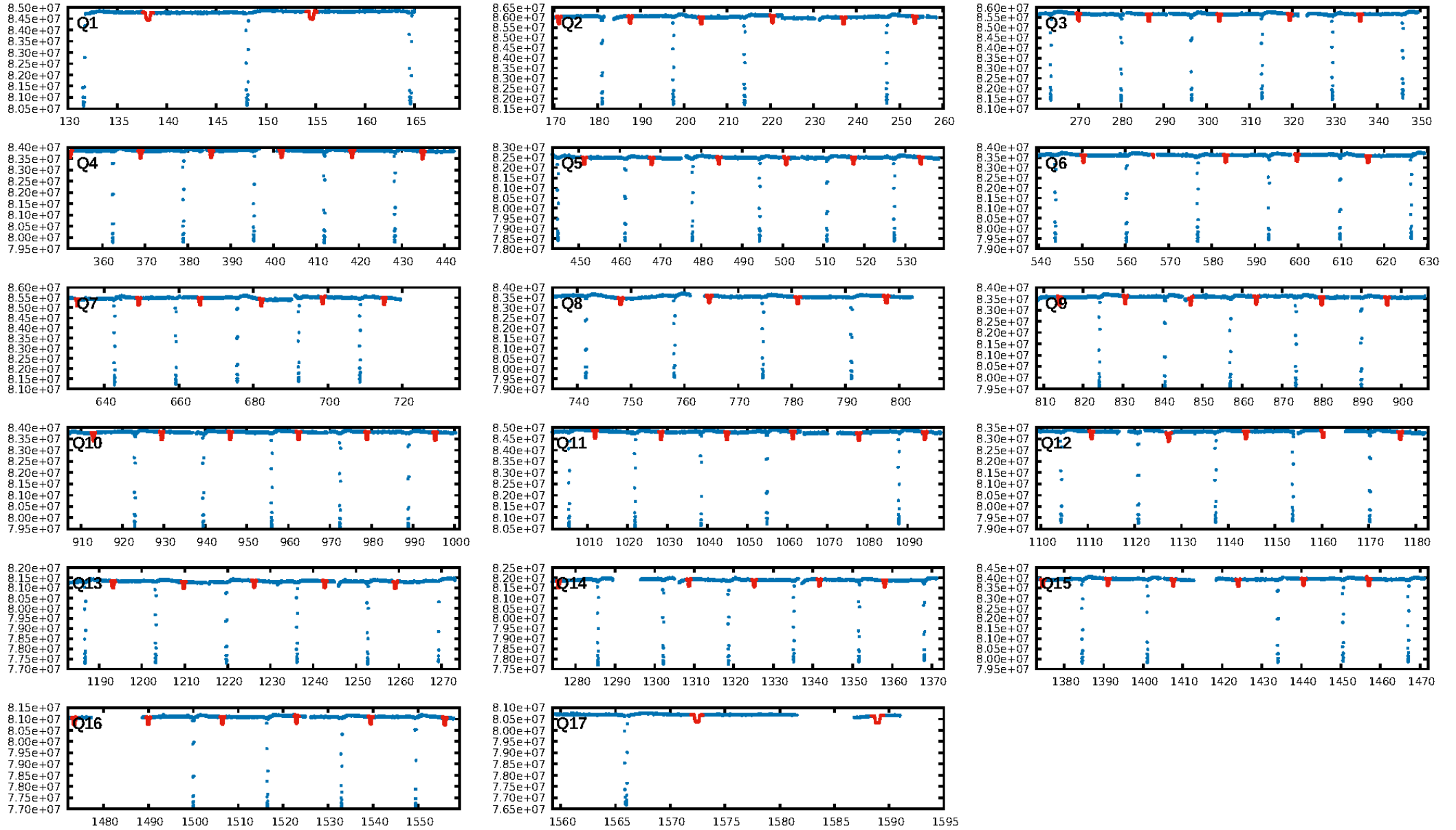
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [82/82]
GhostDiagnostic-chr: 4.888
Centroid-sig: 0.0%
Centroid-so: 0.101 arcsec [6.65σ]
OotOffset-rm: 0.231 arcsec [2.80σ]
KicOffset-rm: 0.119 arcsec [1.43σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
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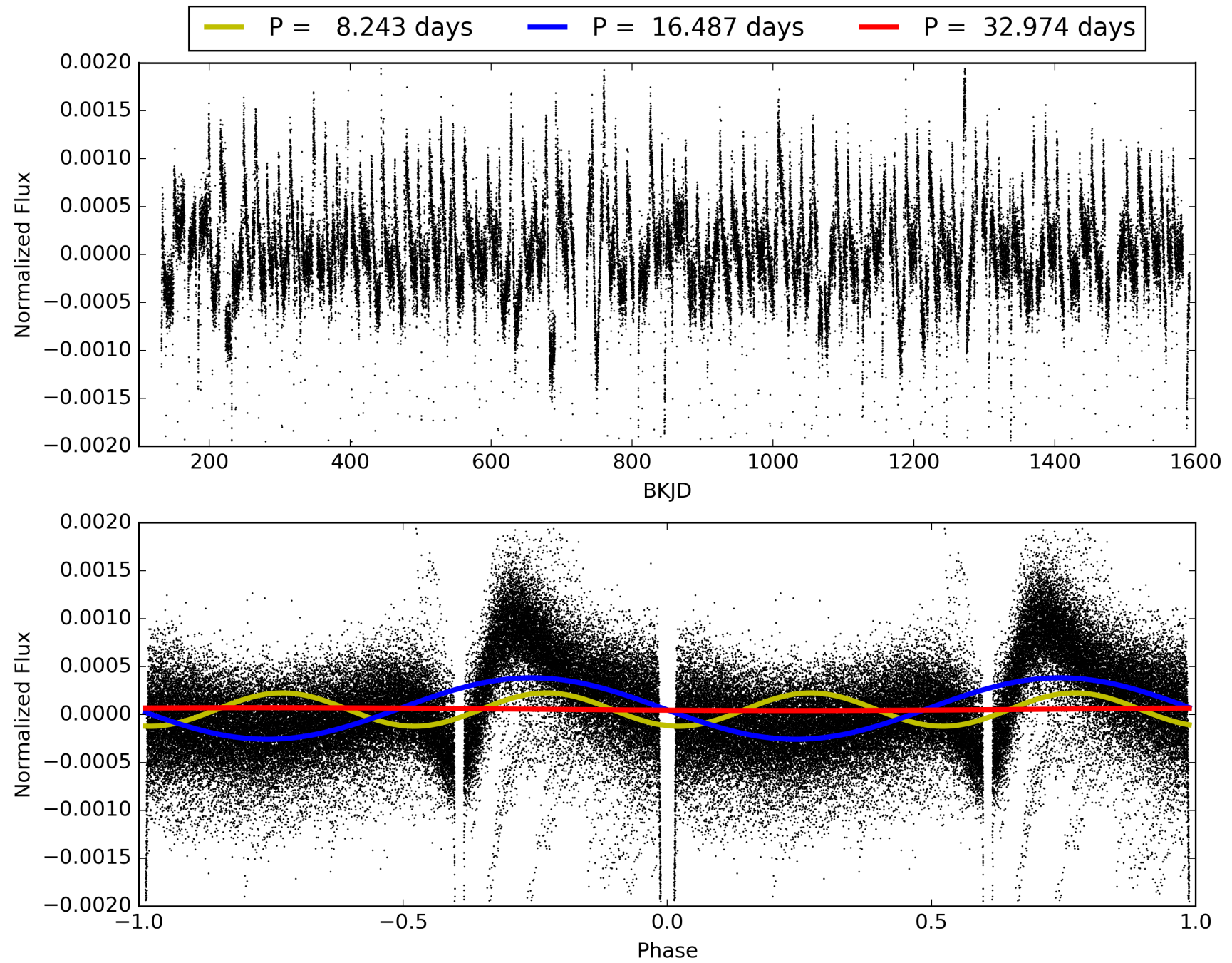
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:04:07 Z

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

TCE 006448768-02, PDC Light Curves

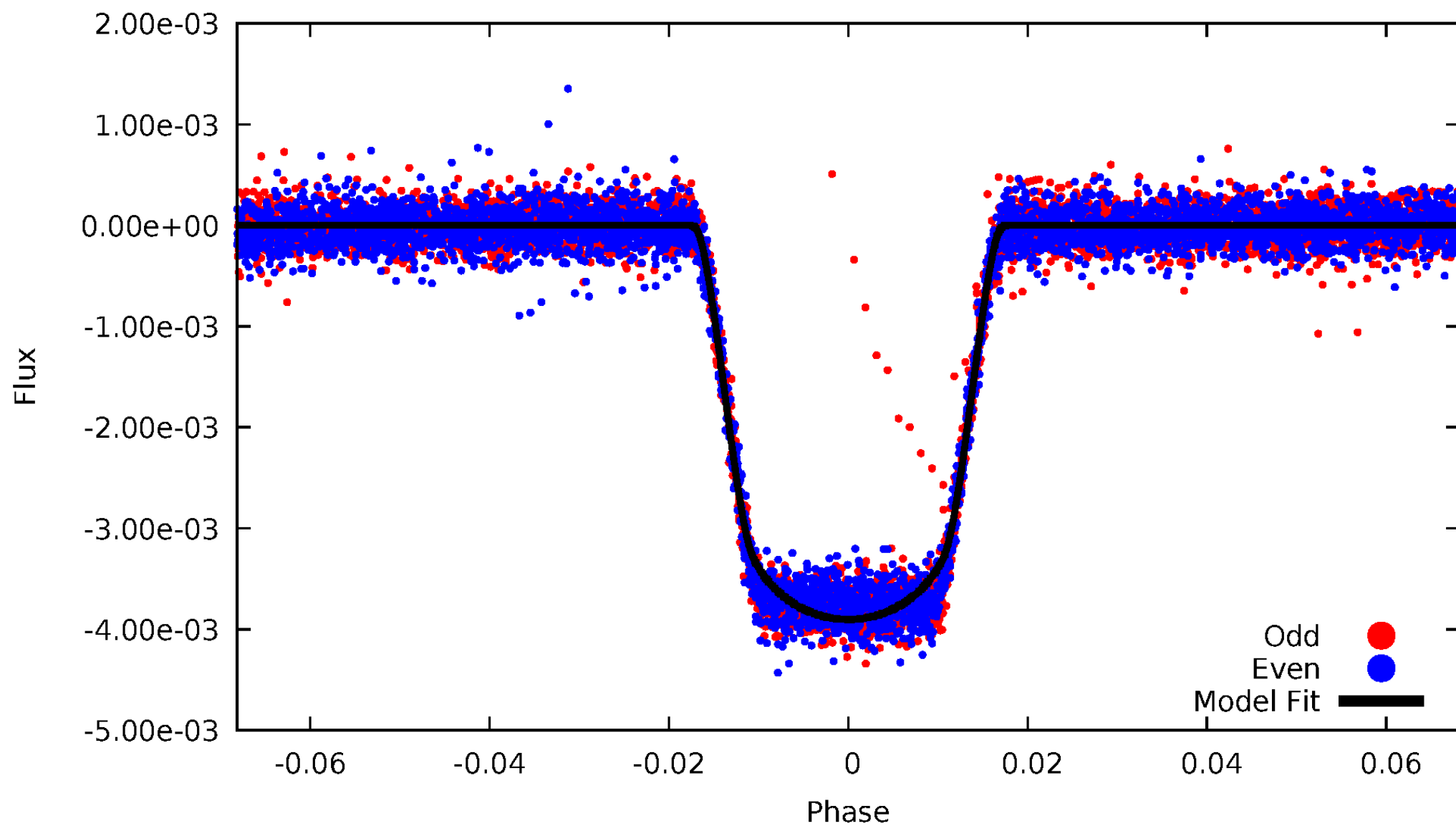


TCE 006448768-02



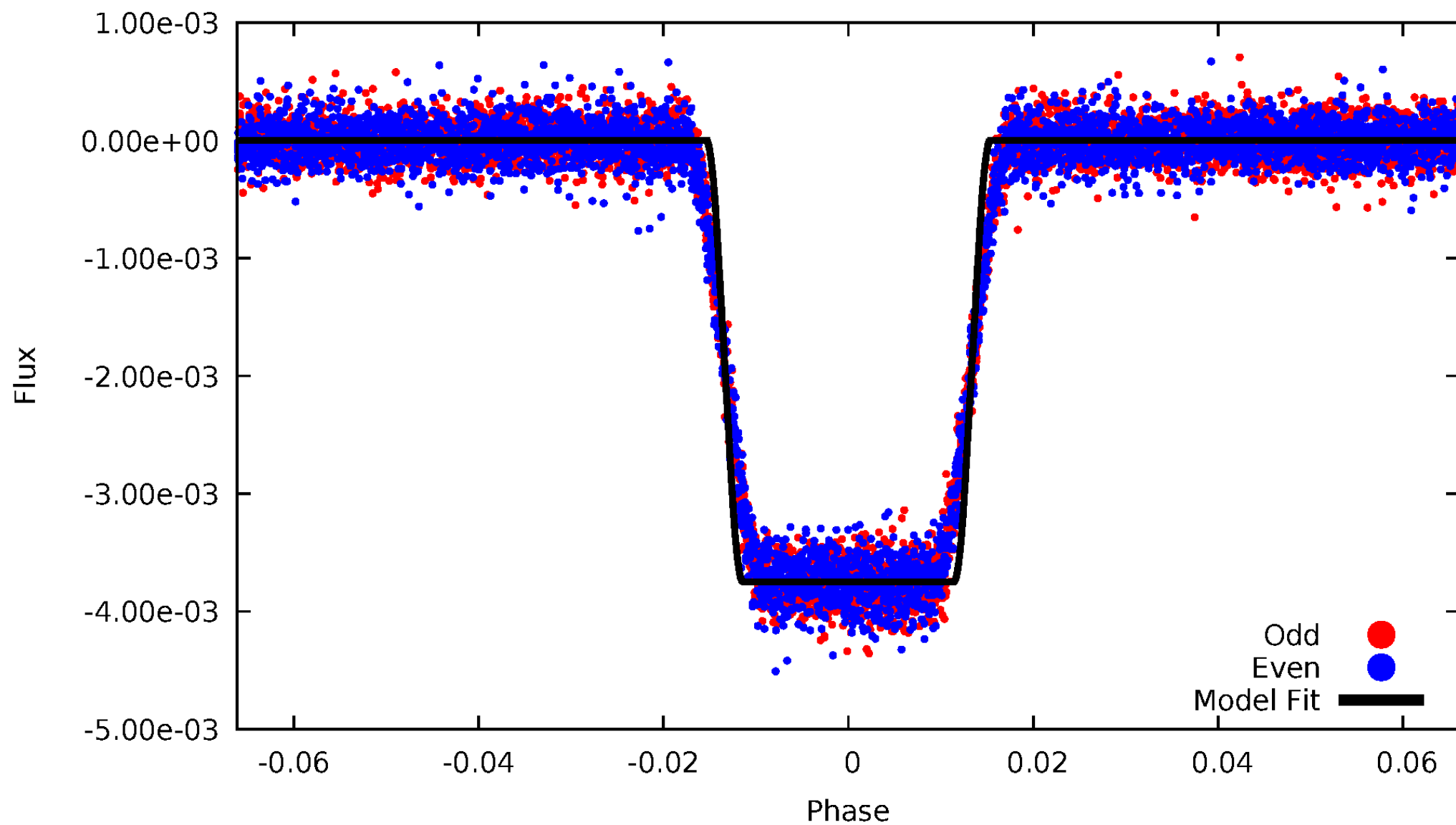
DV Odd/Even

TCE 006448768-02



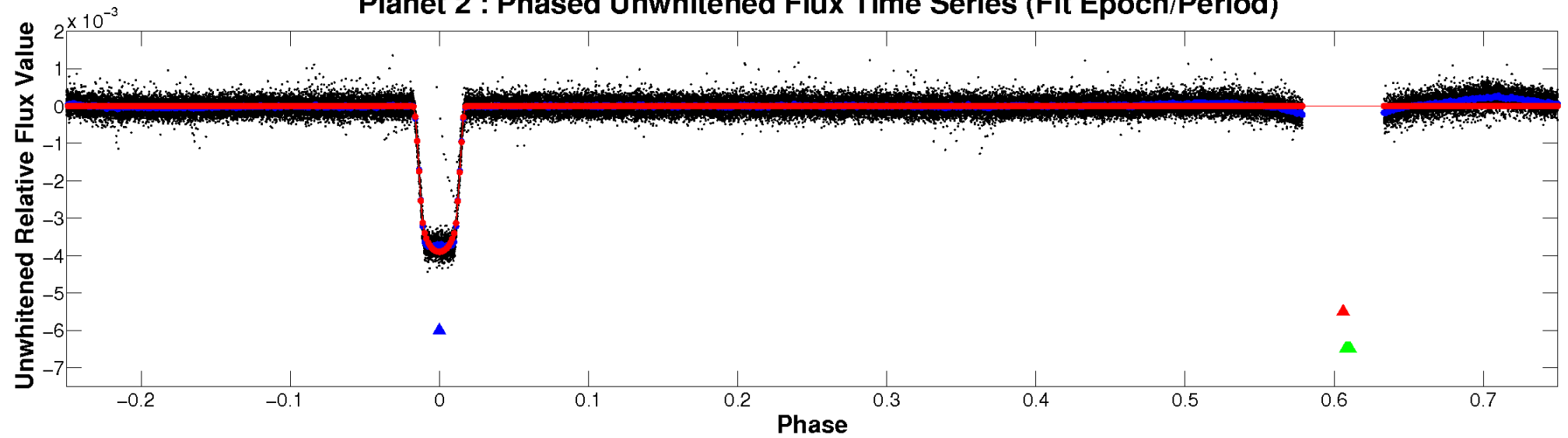
ALT Odd/Even

TCE 006448768-02

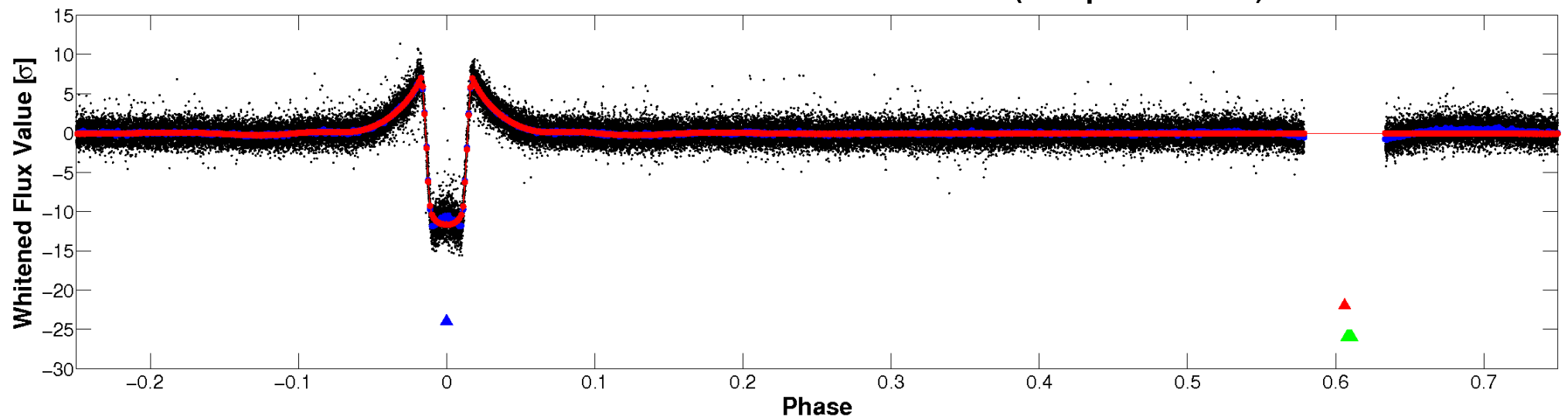


Non-Whitened Vs. Whitened Light Curve

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

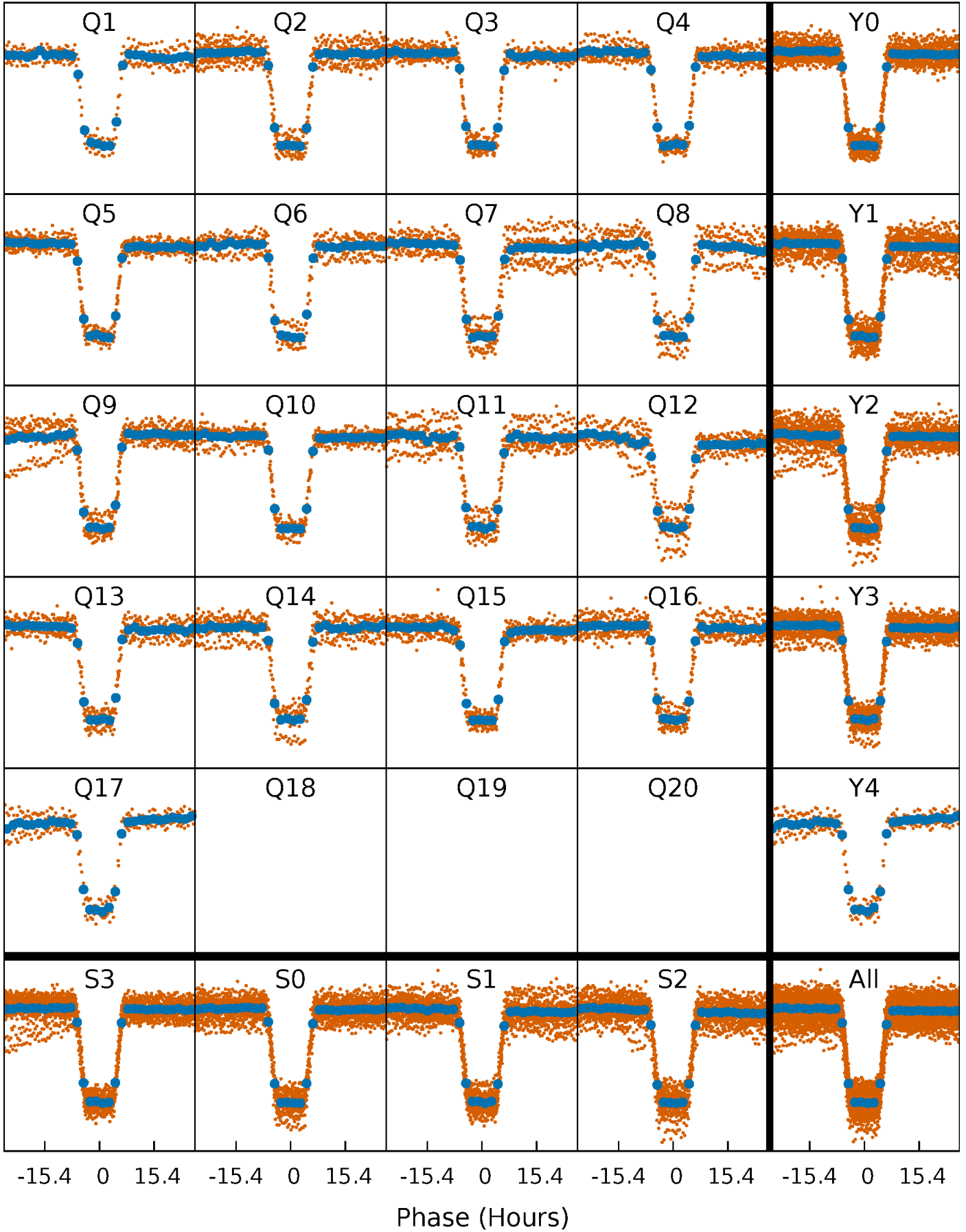


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



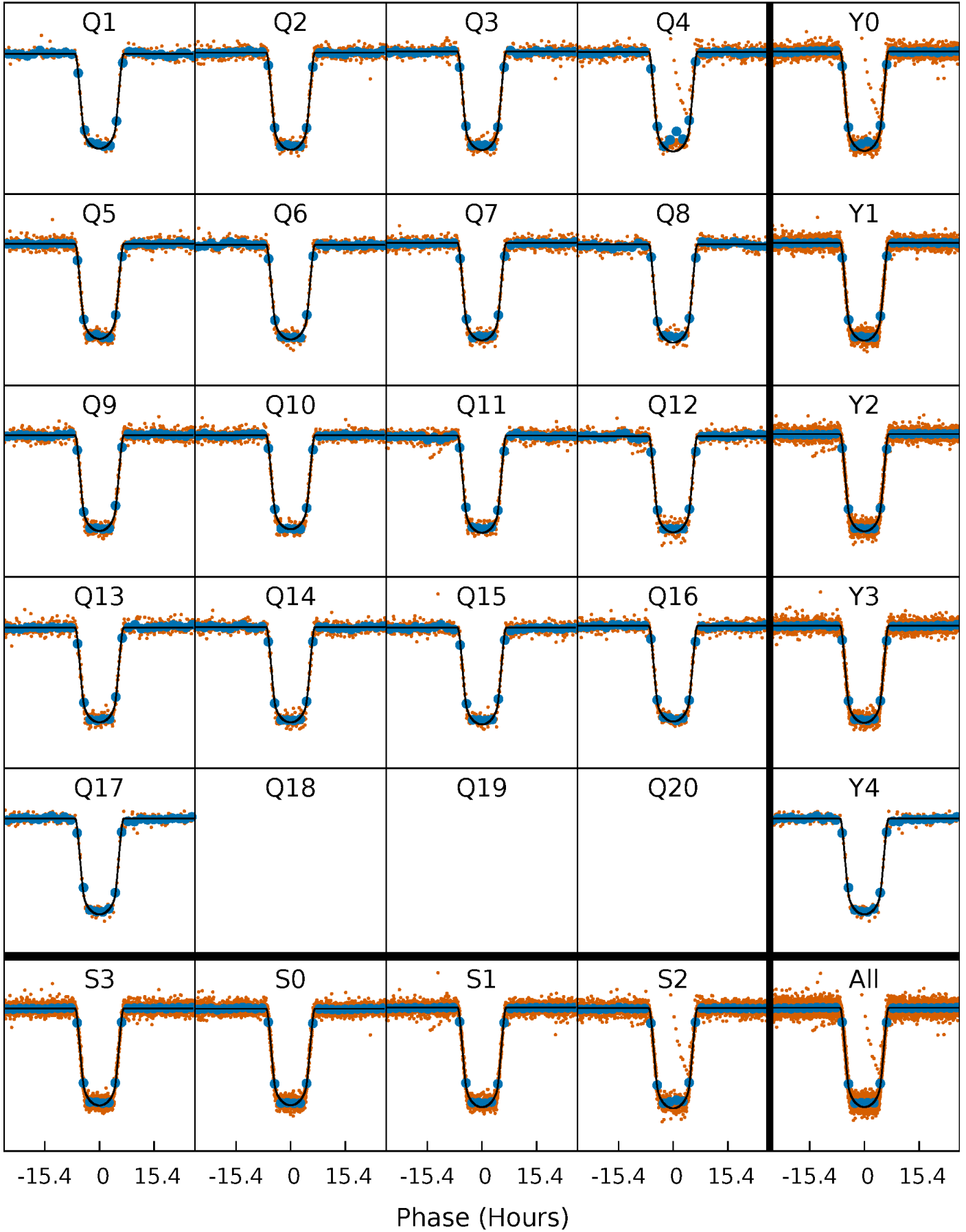
PDC Quarter-Phased Transit Curves

TCE 006448768-02 P= 16.486794 Days $T_0=138.098843$ (BKJD)



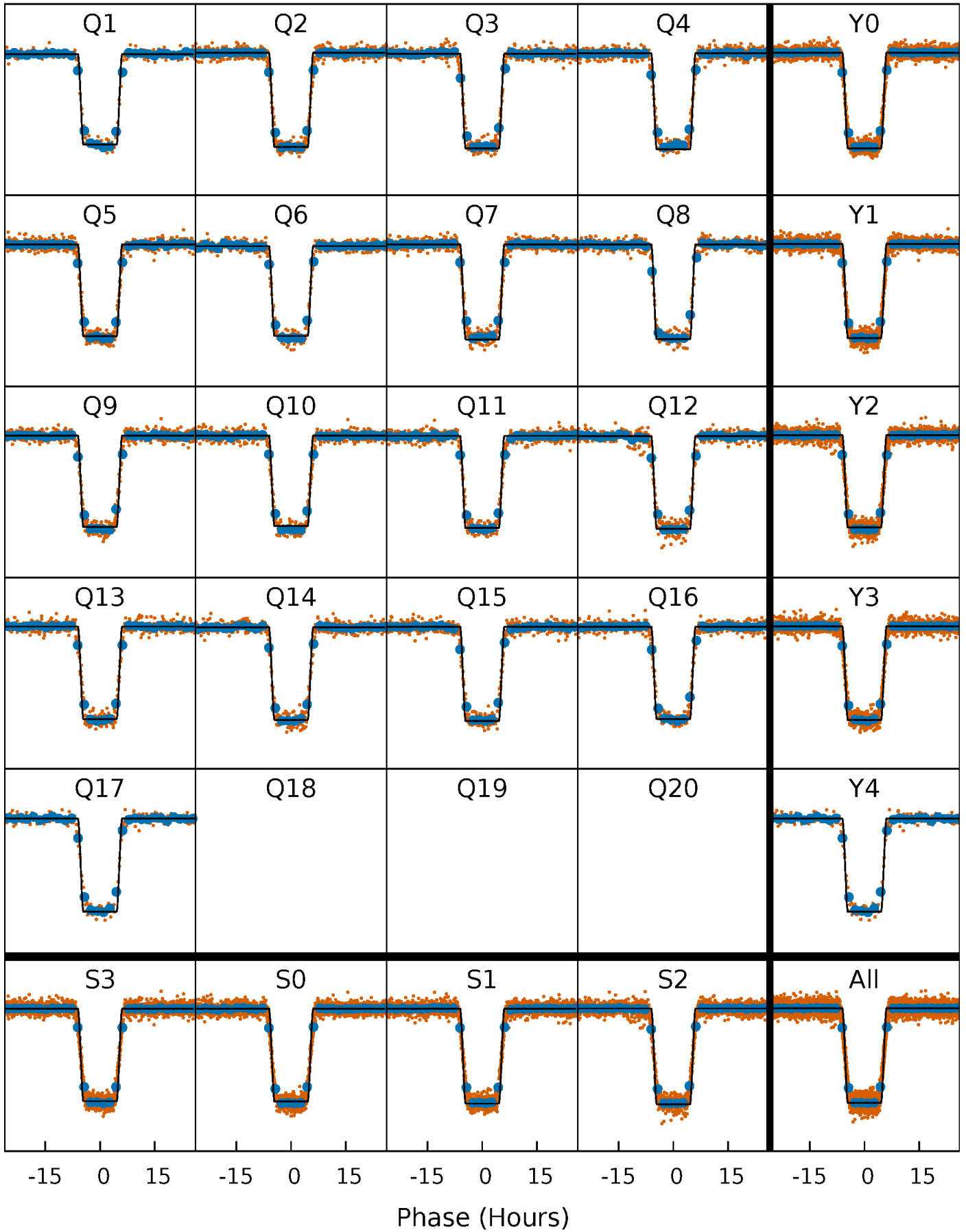
DV Quarter-Phased Transit Curves

TCE 006448768-02 P= 16.486794 Days $T_0=138.098843$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

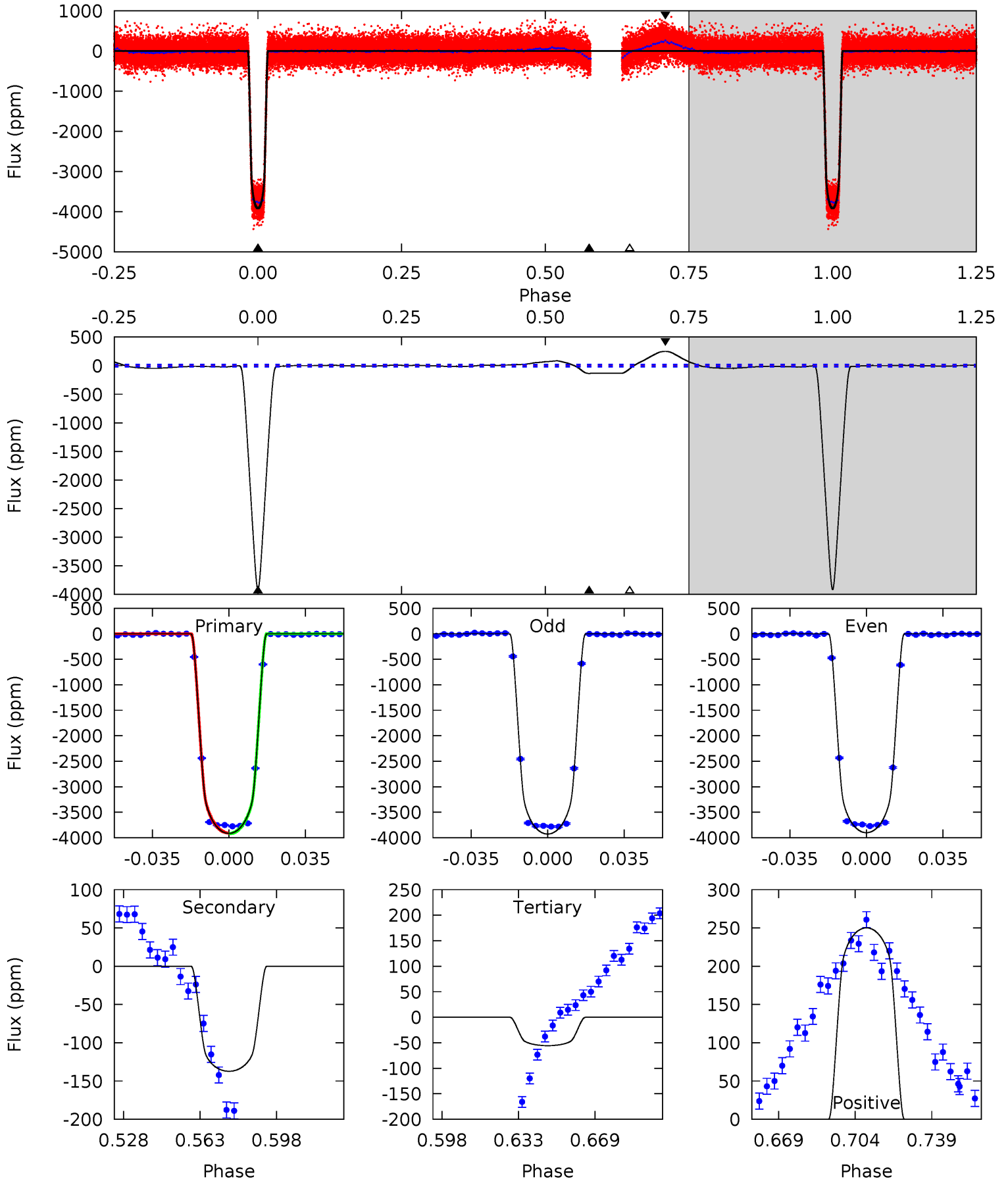
TCE 006448768-02 P= 16.486820 Days $T_0=138.097646$ (BKJD)



DV Model-Shift Uniqueness Test

006448768-02, P = 16.486794 Days, E = 121.612049 Days

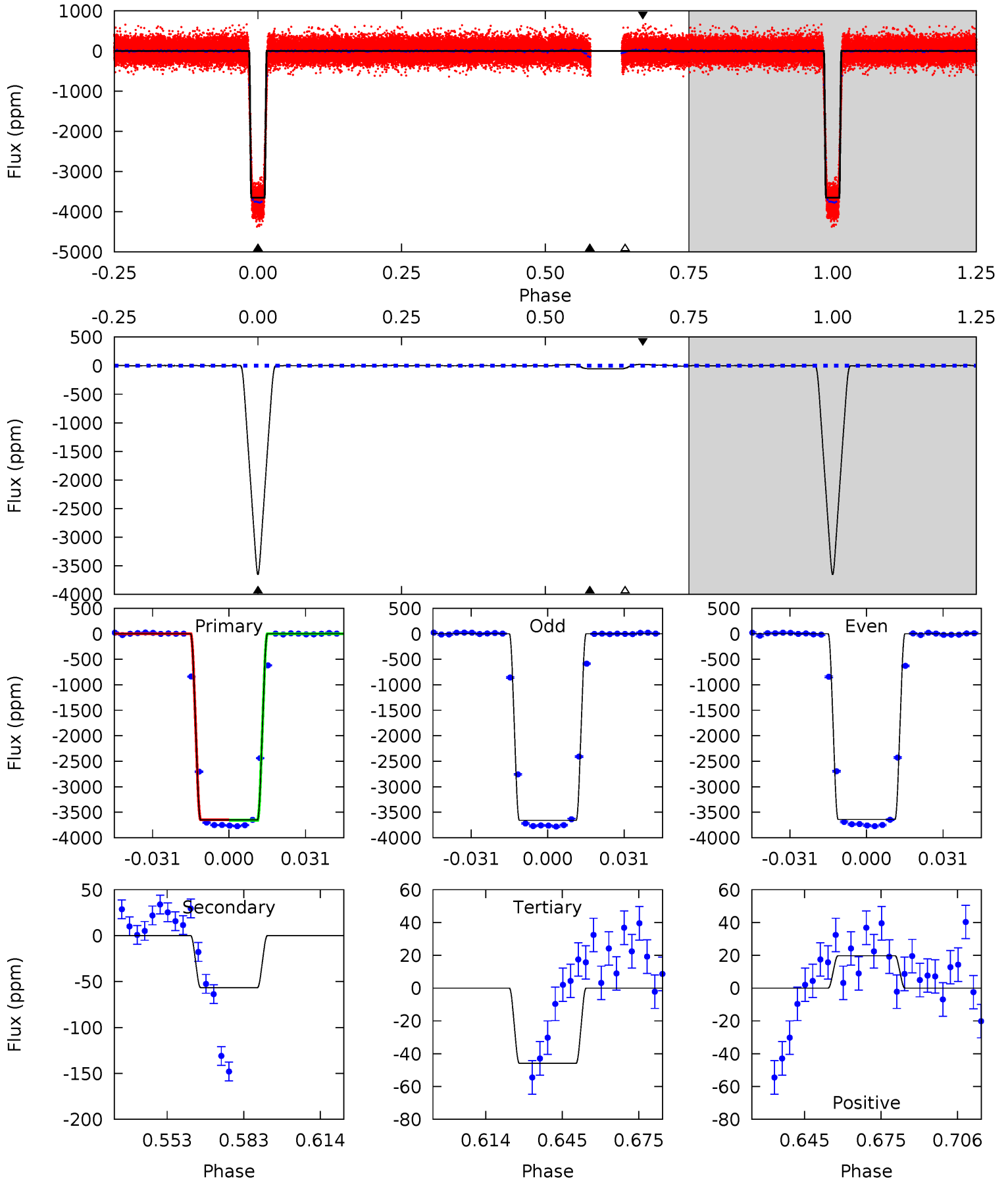
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1082	37.9	15.4	69.1	4.78	2.11	17.2	1067	1013	22.6	-31.2	3.60	1.00	0.06	1.66



Alt Model-Shift Uniqueness Test

006448768-02, P = 16.486820 Days, E = 121.610826 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1093	16.9	13.7	5.92	4.81	2.16	2.16	1079	1087	3.23	11.0	2.79	1.00	0.01	1.34



Stellar Parameters For KIC 006448768

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6020^{+81}_{-81}	$3.860^{+0.224}_{-0.096}$	$-0.240^{+0.150}_{-0.150}$	$2.097^{+0.311}_{-0.622}$	$1.162^{+0.106}_{-0.172}$	$0.177^{+0.251}_{-0.052}$
	+1%/-1%	+6%/-2%	+62%/-62%	+15%/-30%	+9%/-15%	+142%/-29%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 006448768-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-137 ± 4	$14.70^{+1.27}_{-2.09}$	1464^{+66}_{-94}	3150^{+32}_{-30}	$6.316^{+1.922}_{-1.030}$
Alt.	-57 ± 3	$13.84^{+1.29}_{-2.12}$	1460^{+67}_{-108}	2802^{+33}_{-34}	$2.926^{+0.953}_{-0.488}$

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

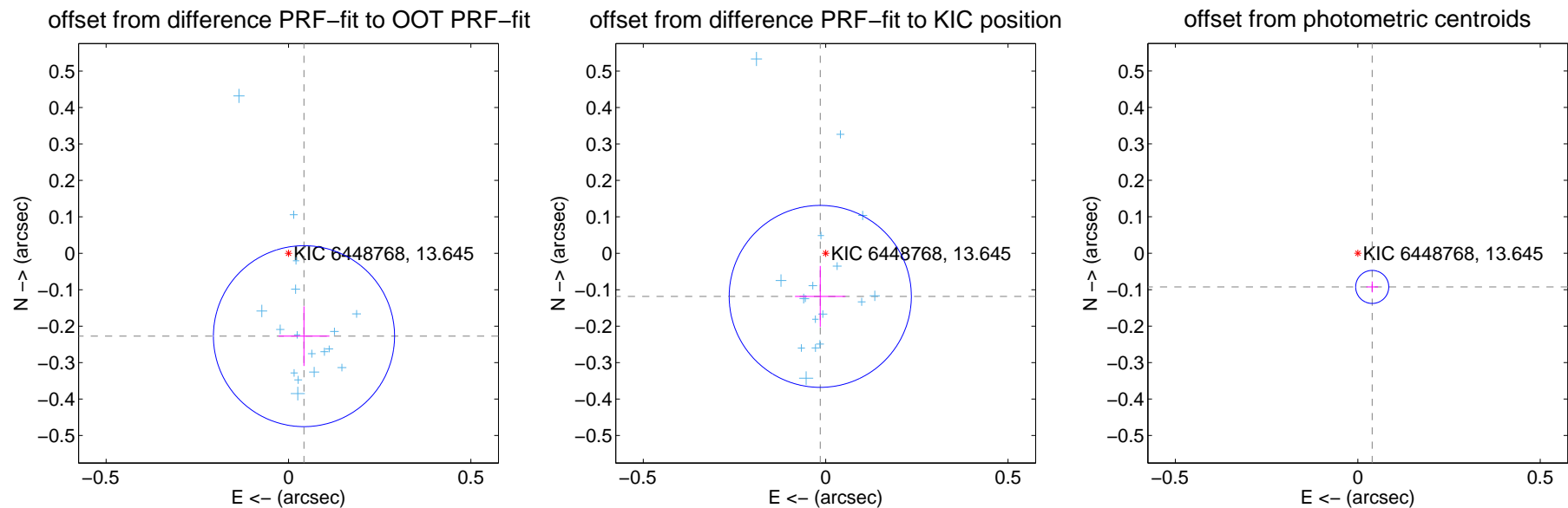
DV Centroid Data

Supplemental centroid analysis for 006448768-02. Kepler magnitude: 13.64. Transit SNR 488.46

There are 17 quarters with good PRF difference image offsets

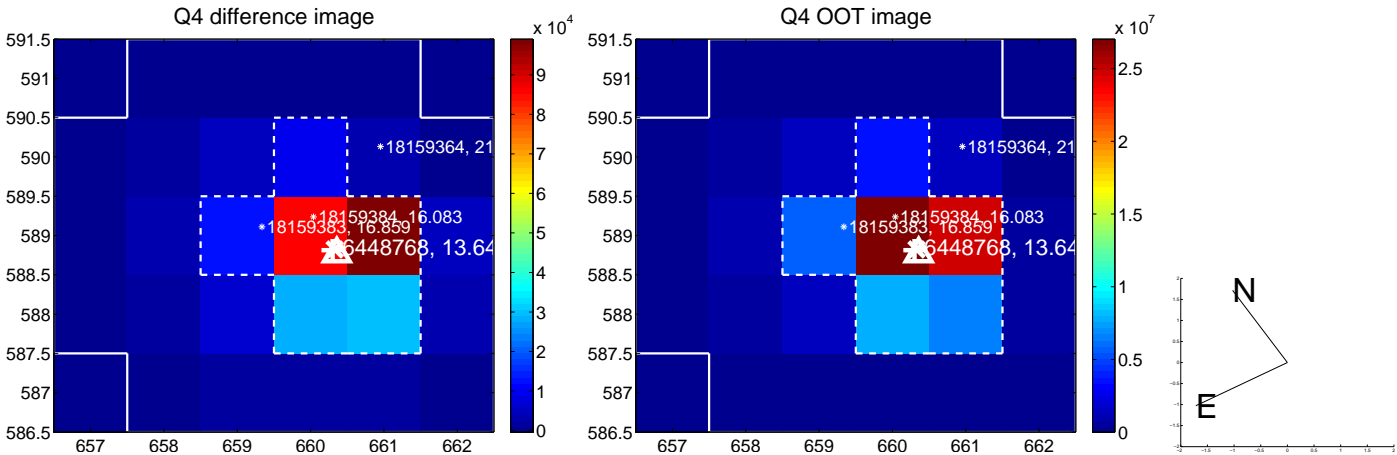
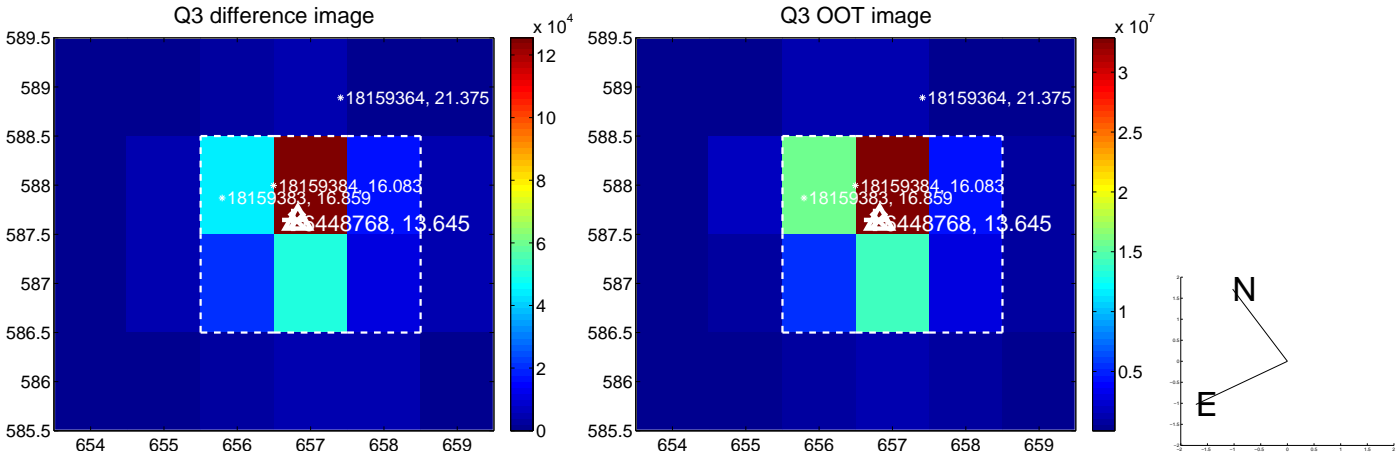
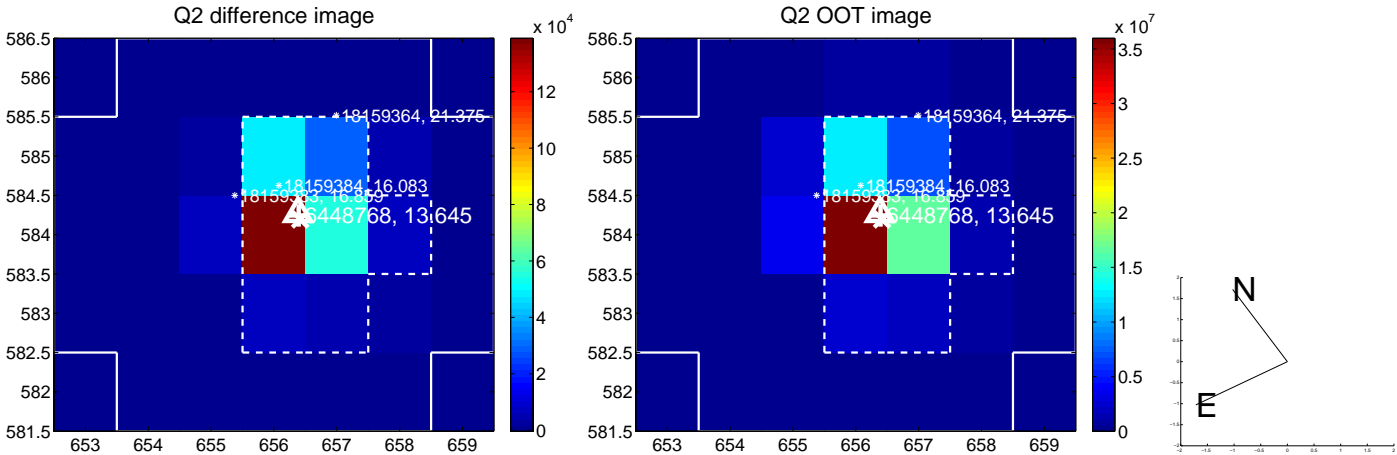
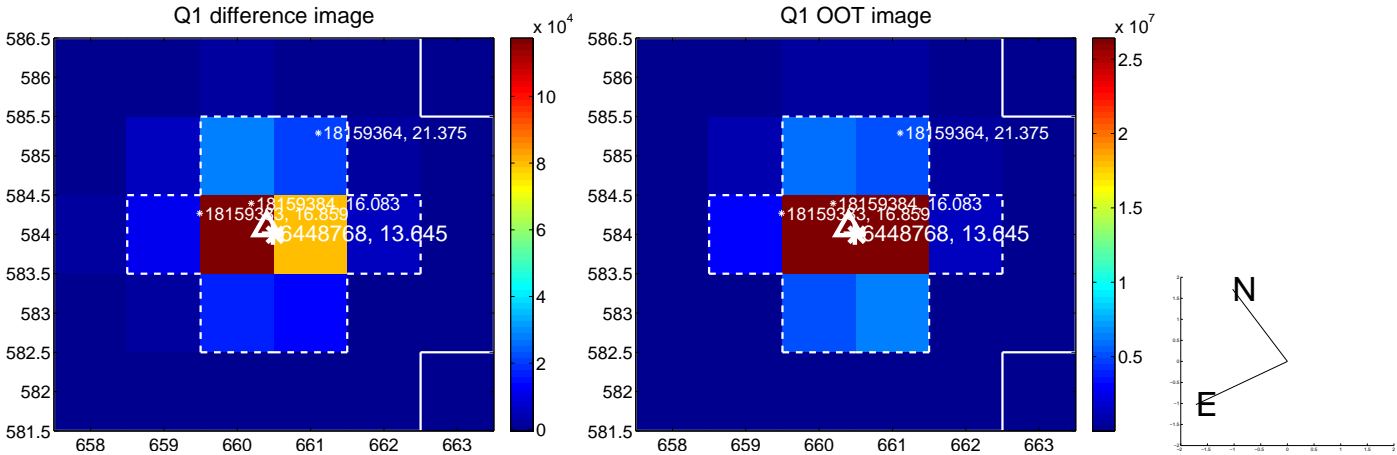
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.231 ± 0.083	2.80	-0.042 ± 0.070	-0.227 ± 0.082
PRF-fit source offset from KIC position	0.119 ± 0.083	1.43	0.015 ± 0.069	-0.118 ± 0.084
photometric centroid source offset	0.10 ± 0.02	6.65	-0.04 ± 0.02	-0.09 ± 0.01

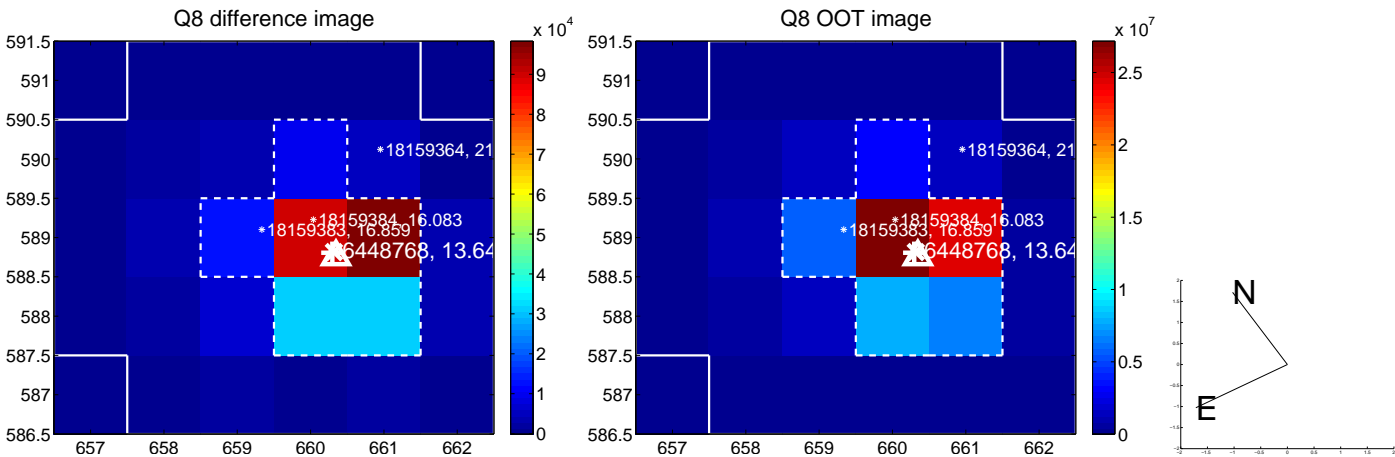
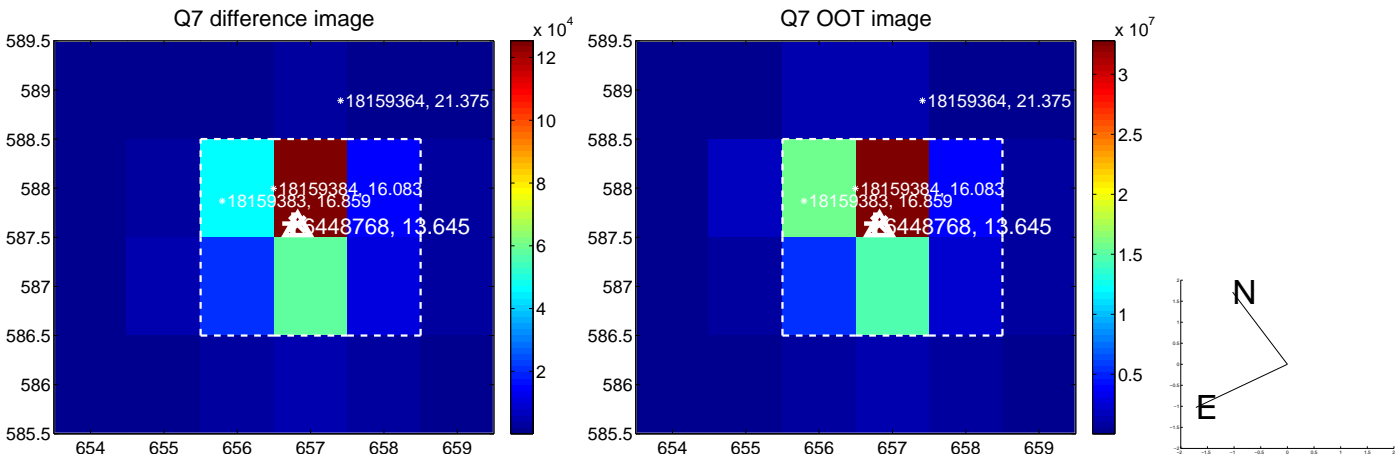
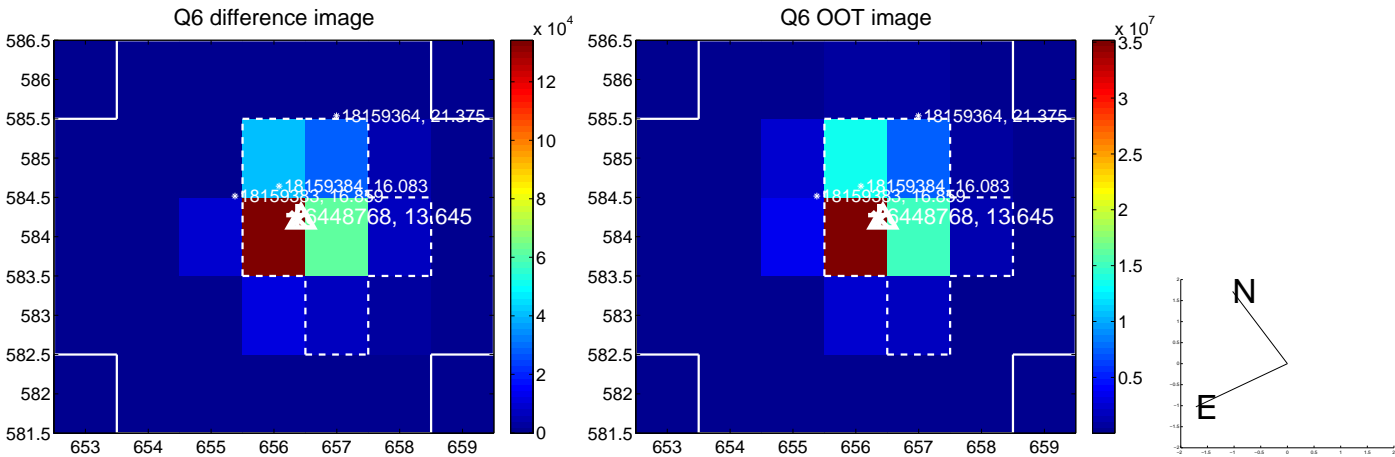
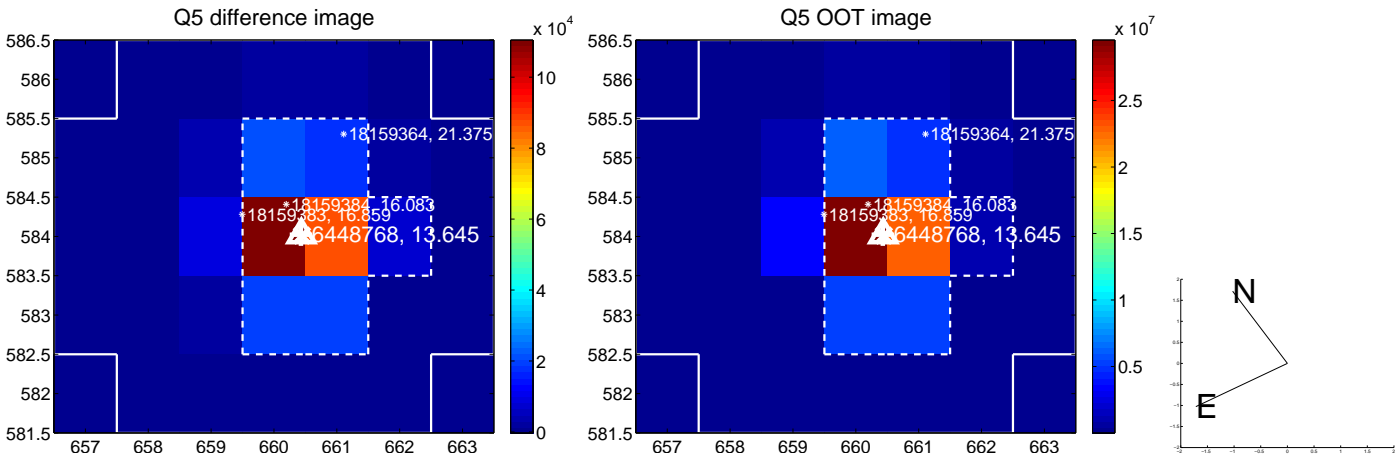


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

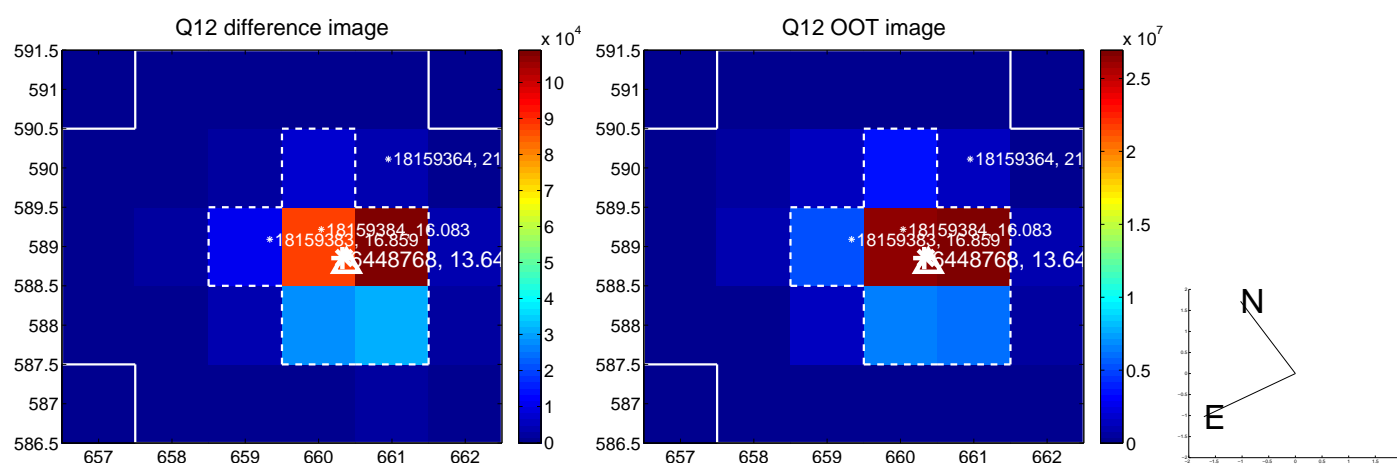
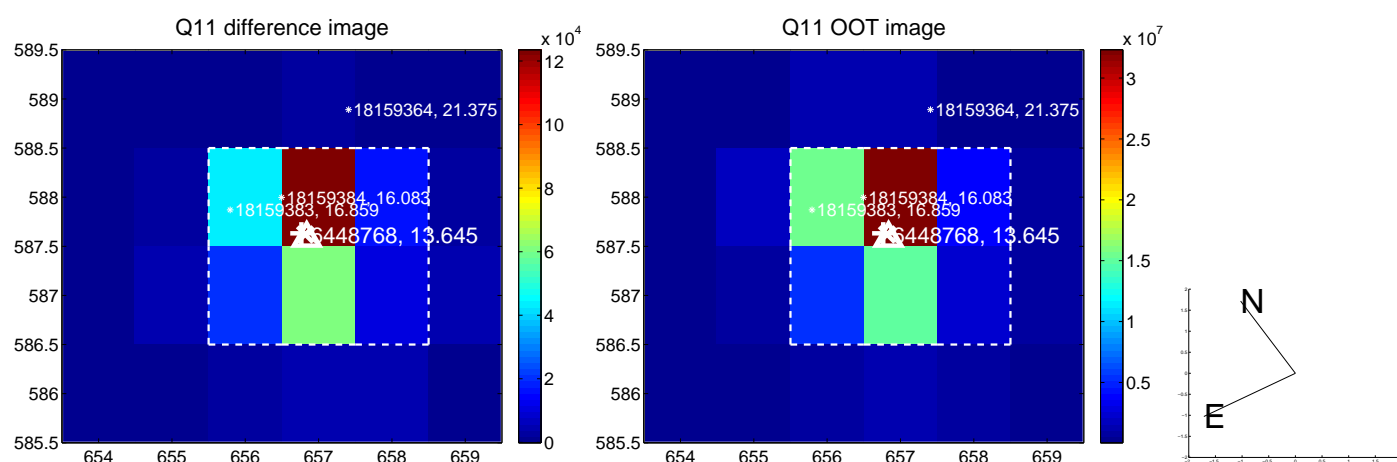
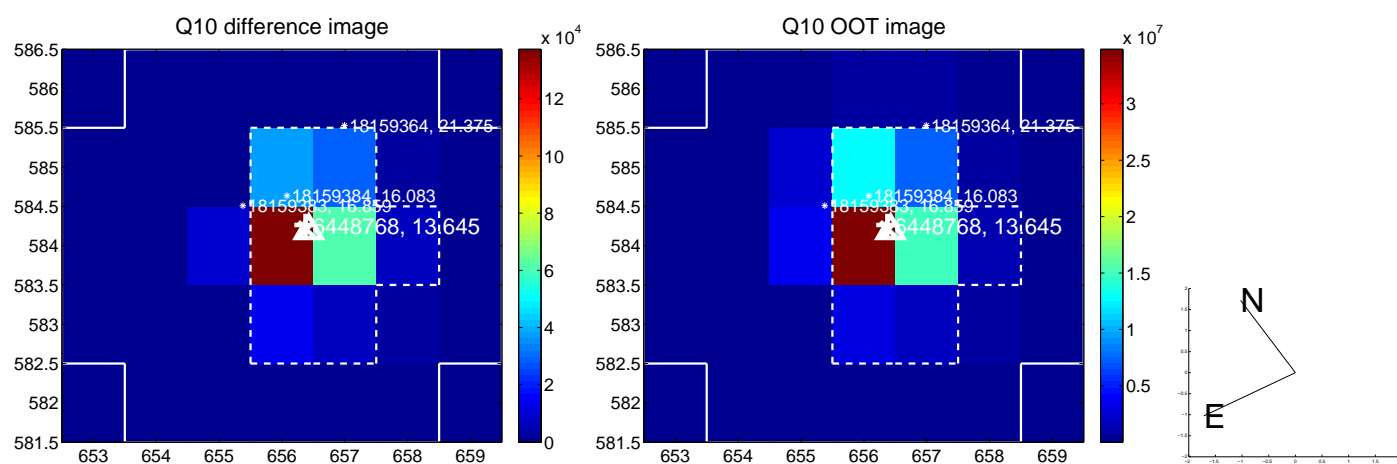
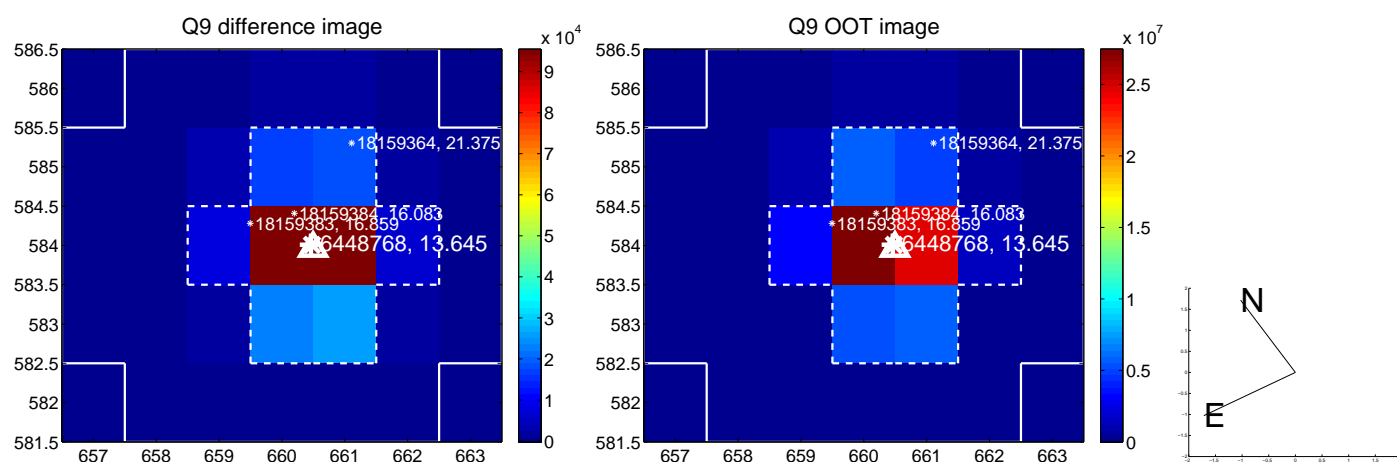
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



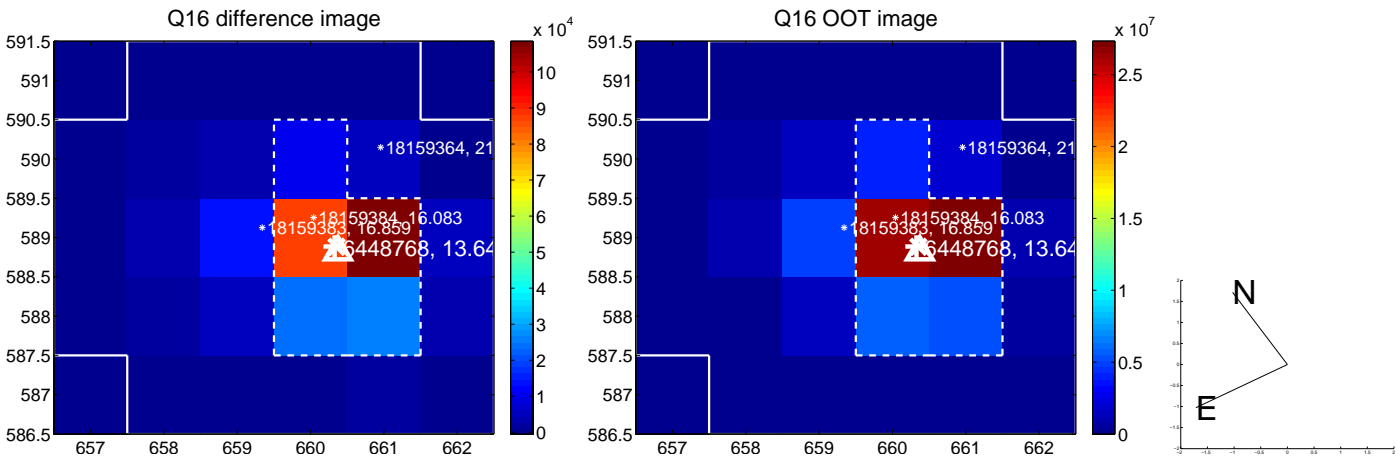
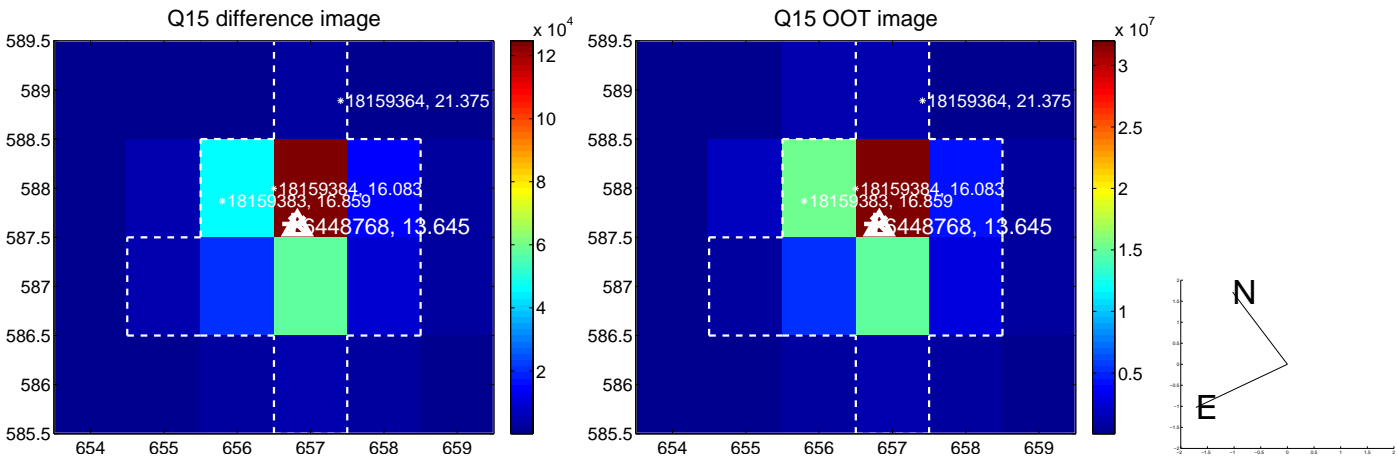
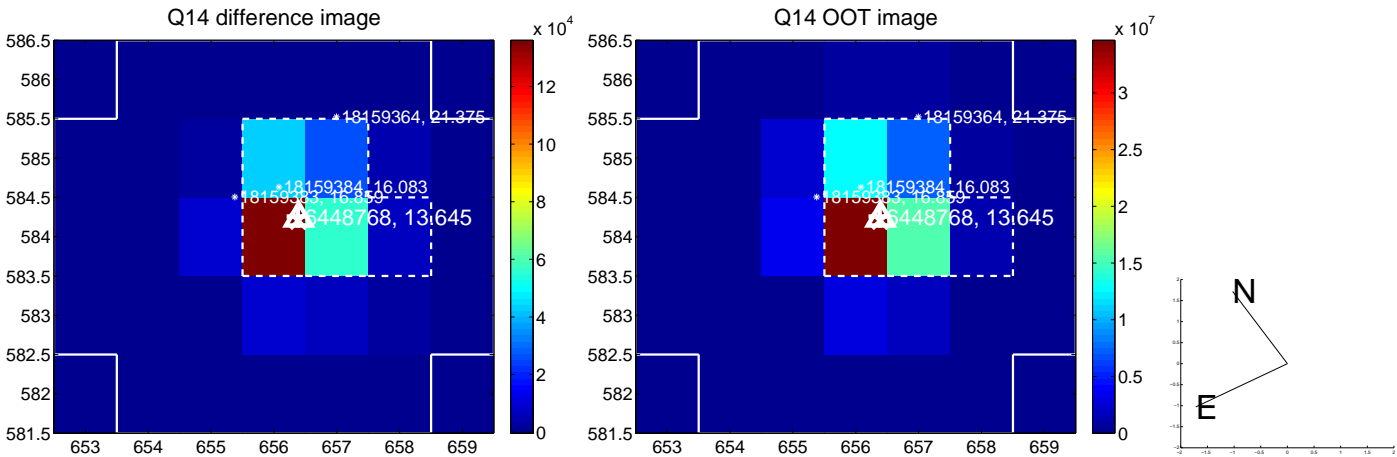
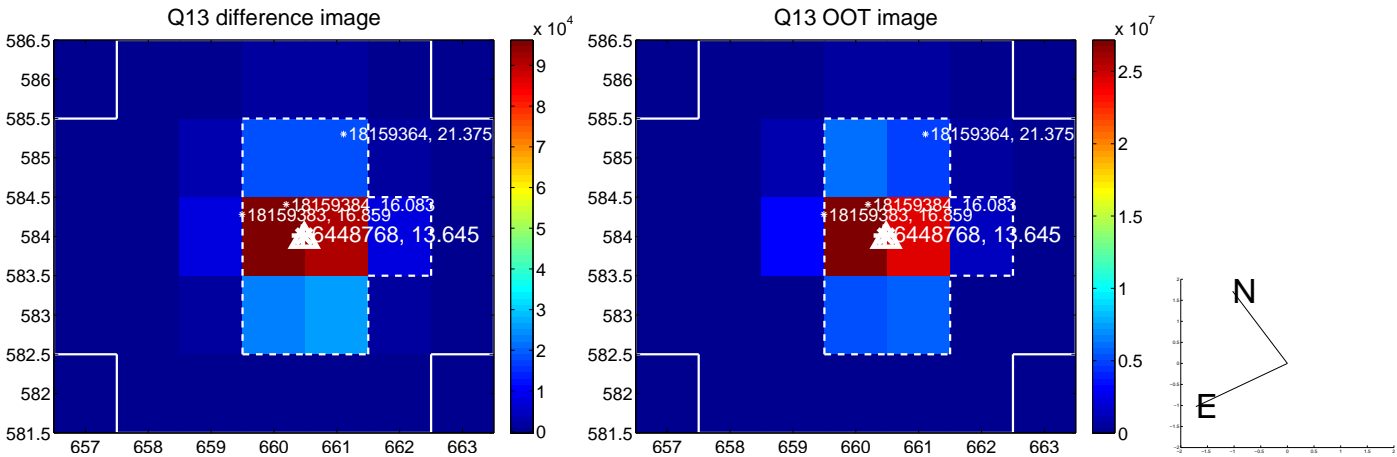
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



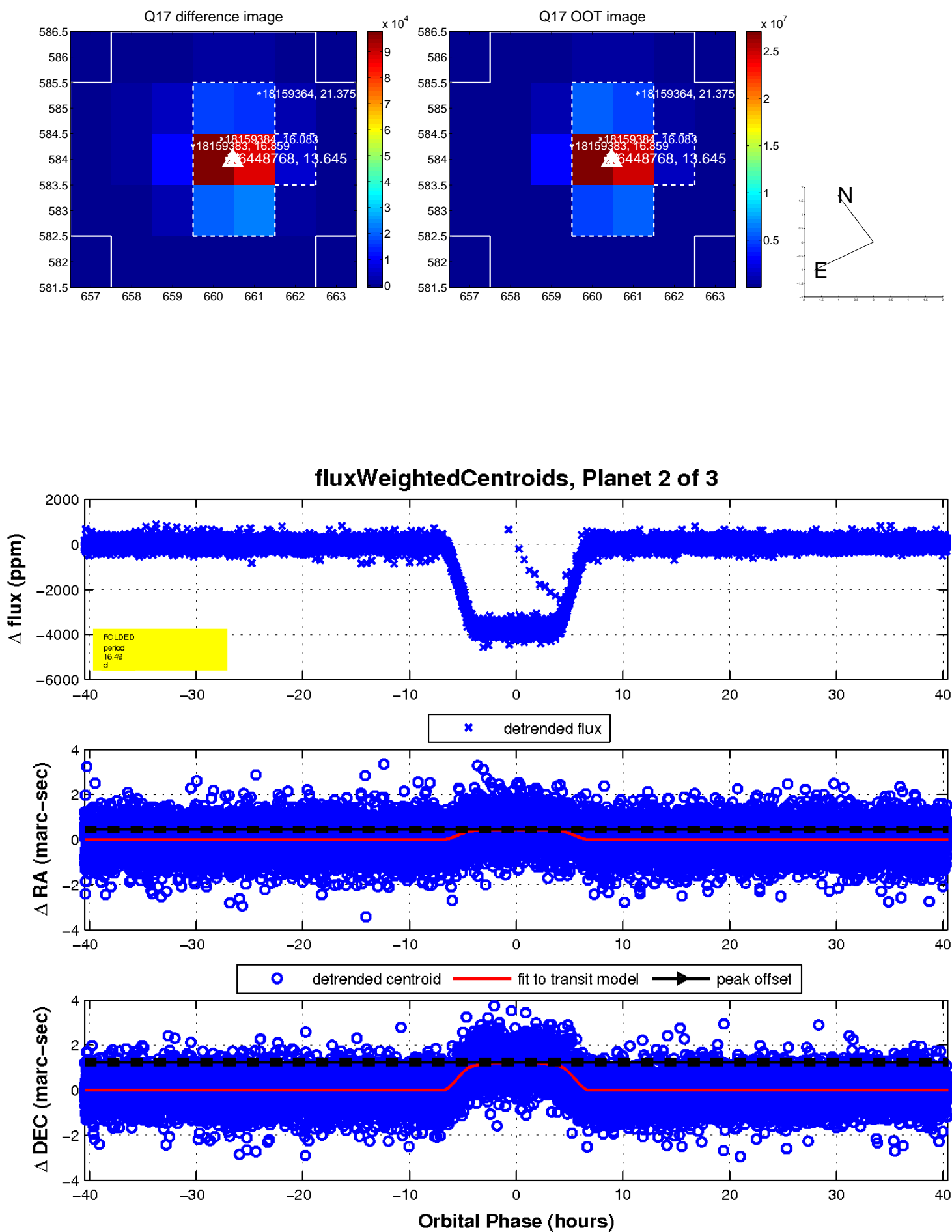
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

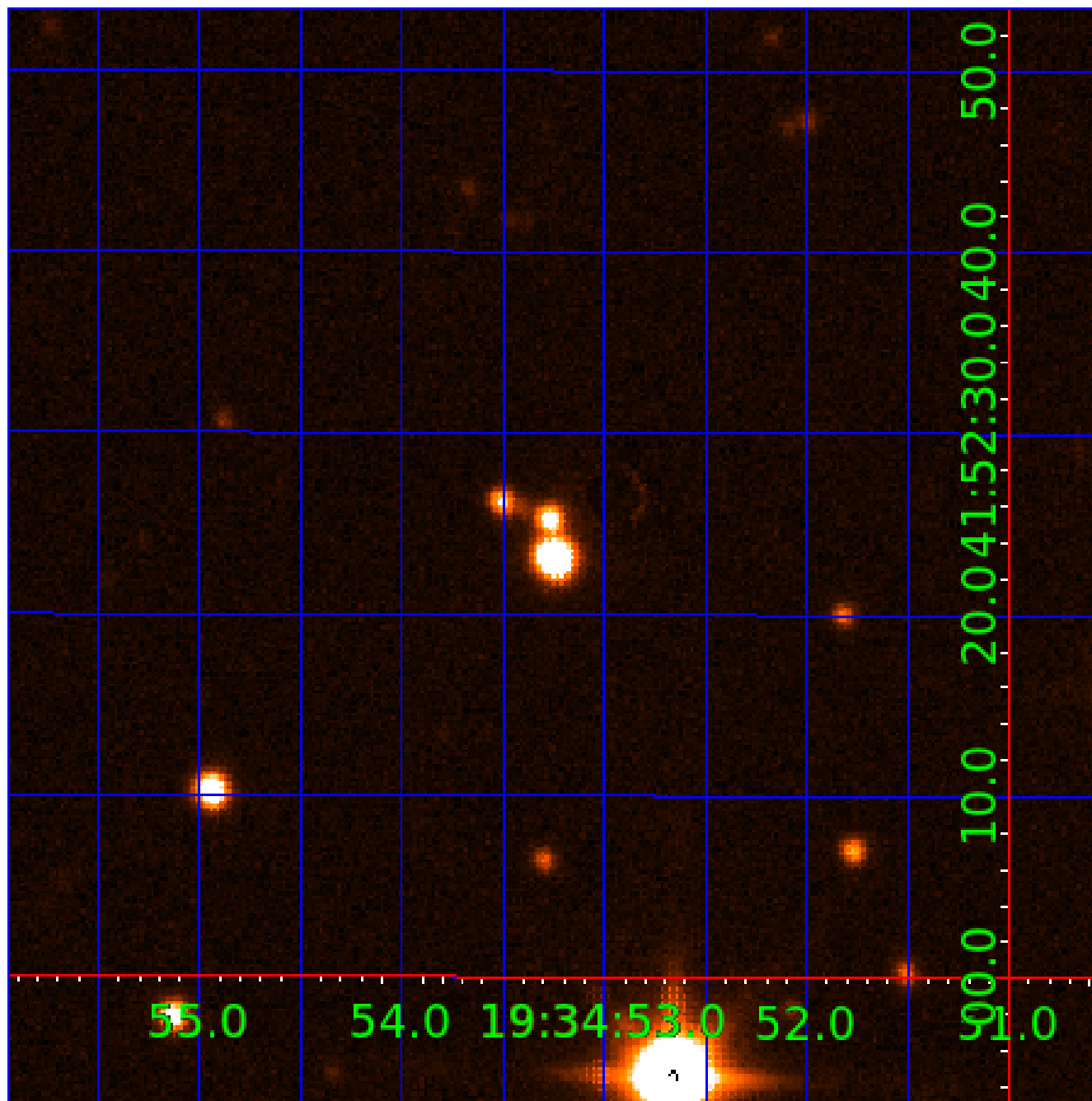


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006448768

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})
006448768-01	OBS	6712.01	16.486796	131.604156	48497.2	7.066	5703.5	4346.7	2.10	6020	46.72	291.18
006448768-02	OBS	No	16.486794	138.098843	3902.9	13.479	518.2	488.5	2.10	6020	14.76	291.18
006448768-03	OBS	No	16.486202	131.683134	693.9	63.200	13.1	31.8	2.10	6020	10.68	291.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006448768-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_DV—HAS_SEC_TCE
006448768-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006448768-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—RESIDUAL_TCE

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 006448768-03

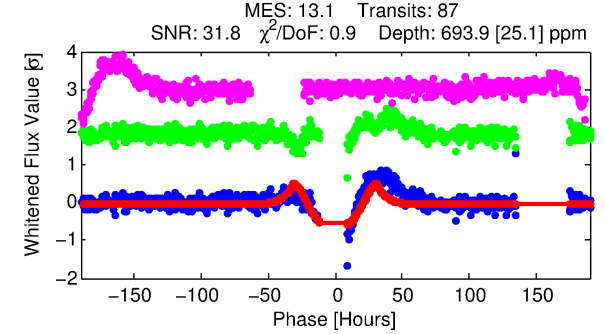
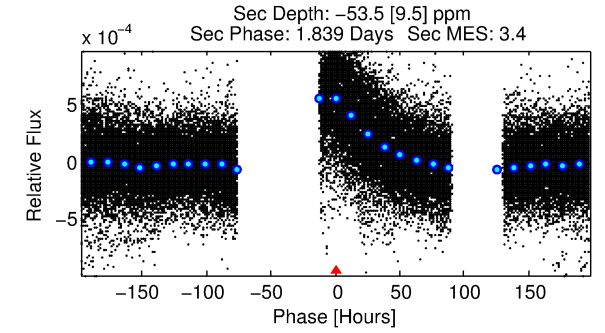
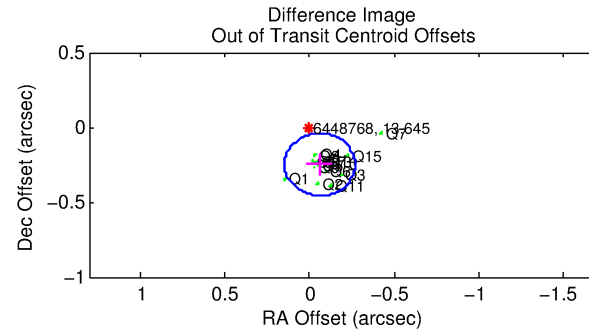
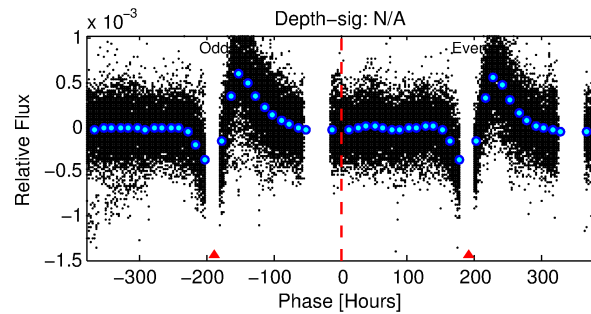
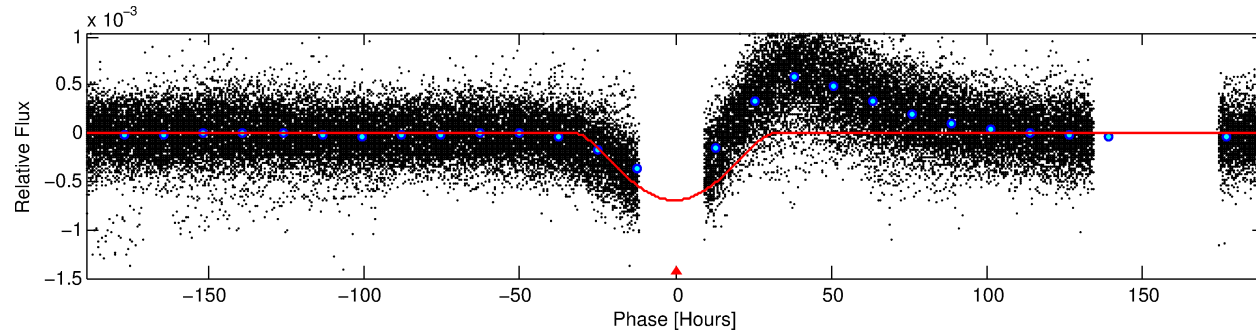
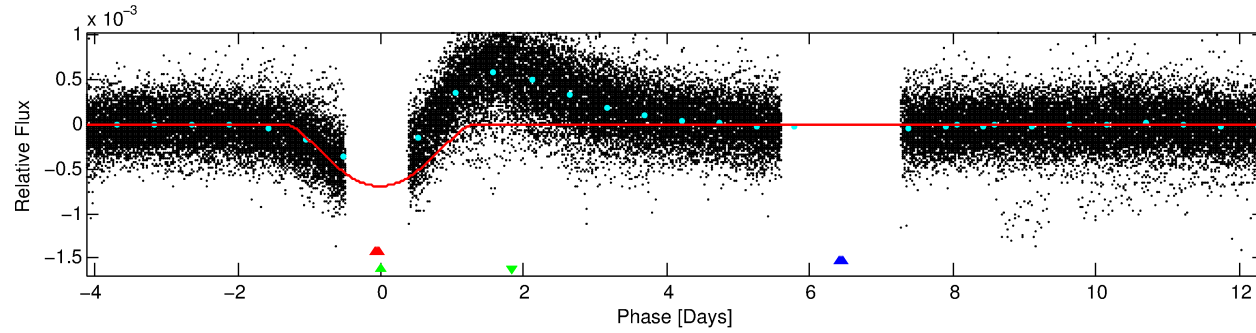
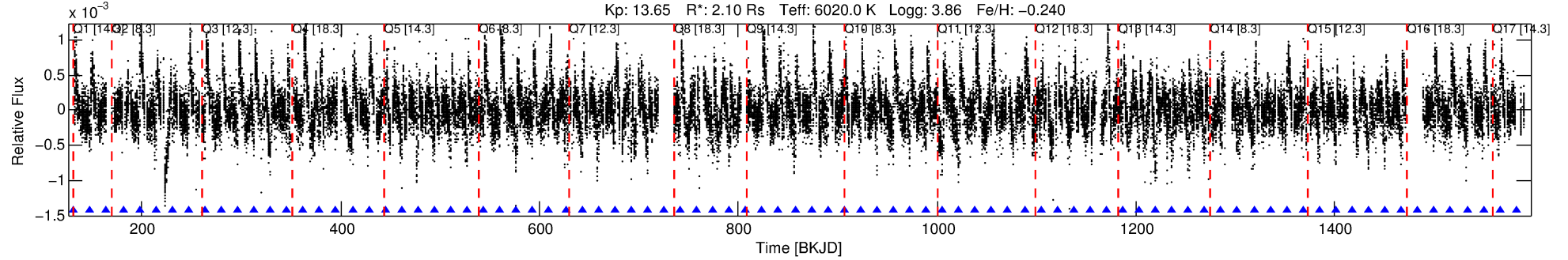
No Significant Match Found

DV One-Page Summary

KIC: 6448768 Candidate: 3 of 3 Period: 16.486 d

KOI: K06712 Corr: No Ephemeris Match

Kp: 13.65 R*: 2.10 Rs Teff: 6020.0 K Logg: 3.86 Fe/H: -0.240



DV Fit Results:

Period = 16.48620 [0.00033] d
Epoch = 131.6831 [0.0171] BKJD
Rp/R* = 0.0467 [0.0157]
a/R* = 1.19 [0.01]
b = 1.00 [0.02]
Seff = 291.20 [116.56]
Teff = 1053 [105] K
Rp = 10.68 [4.79] Re
a = 0.1333 [0.0349] AU
Ag = N/A
Teffp = N/A

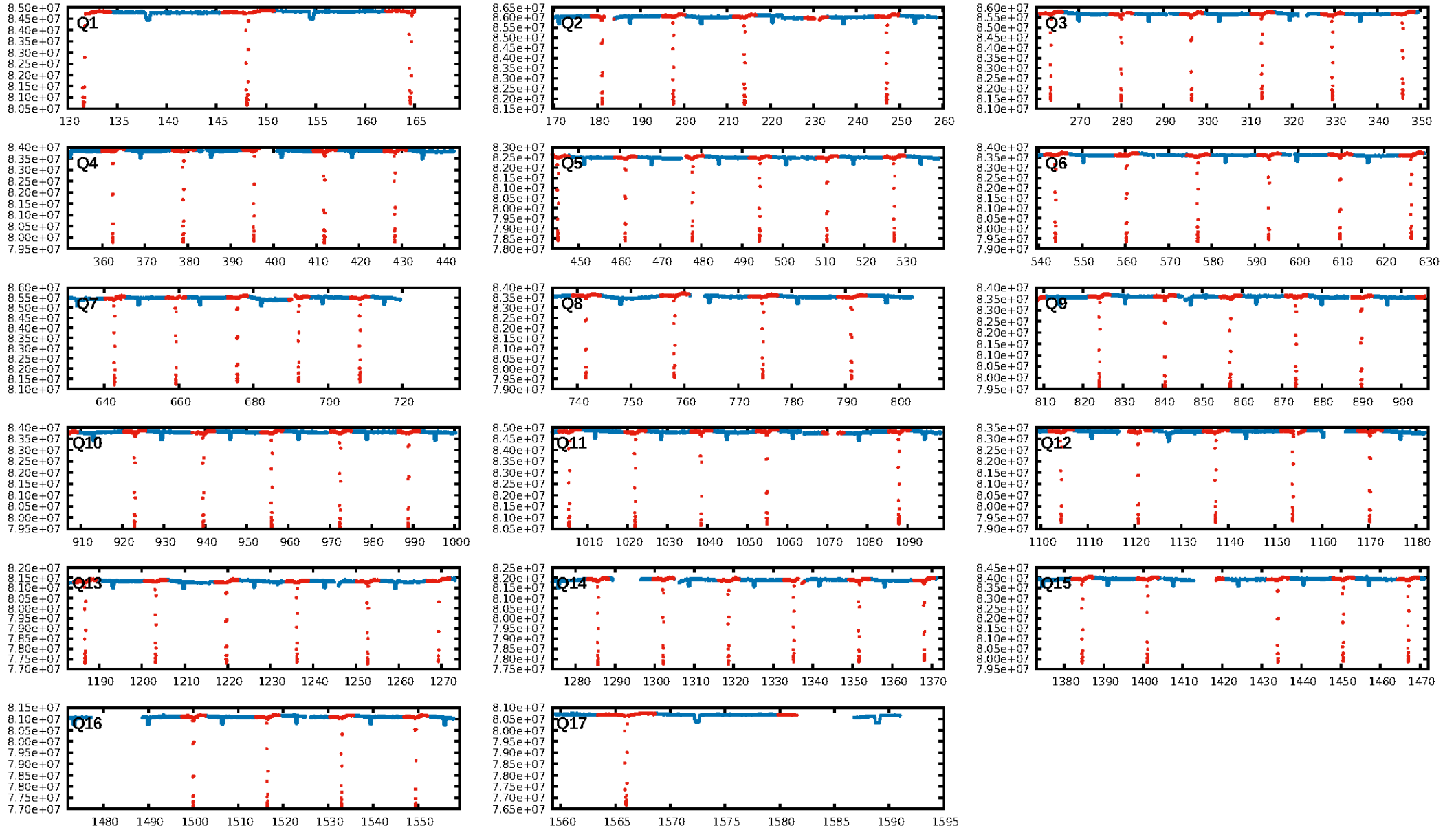
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 1.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [82/82]
GhostDiagnostic-chr: 0.3681
Centroid-sig: 0.0%
Centroid-so: 0.055 arcsec [0.86σ]
OotOffset-rm: 0.256 arcsec [3.69σ]
KicOffset-rm: 0.152 arcsec [2.12σ]
OotOffset-st: 4/4/2/5 [15]
KicOffset-st: 4/4/2/5 [15]
DiffImageQuality-fgm: 1.00 [15/15]
DiffImageOverlap-fno: 0.00 [0/15]

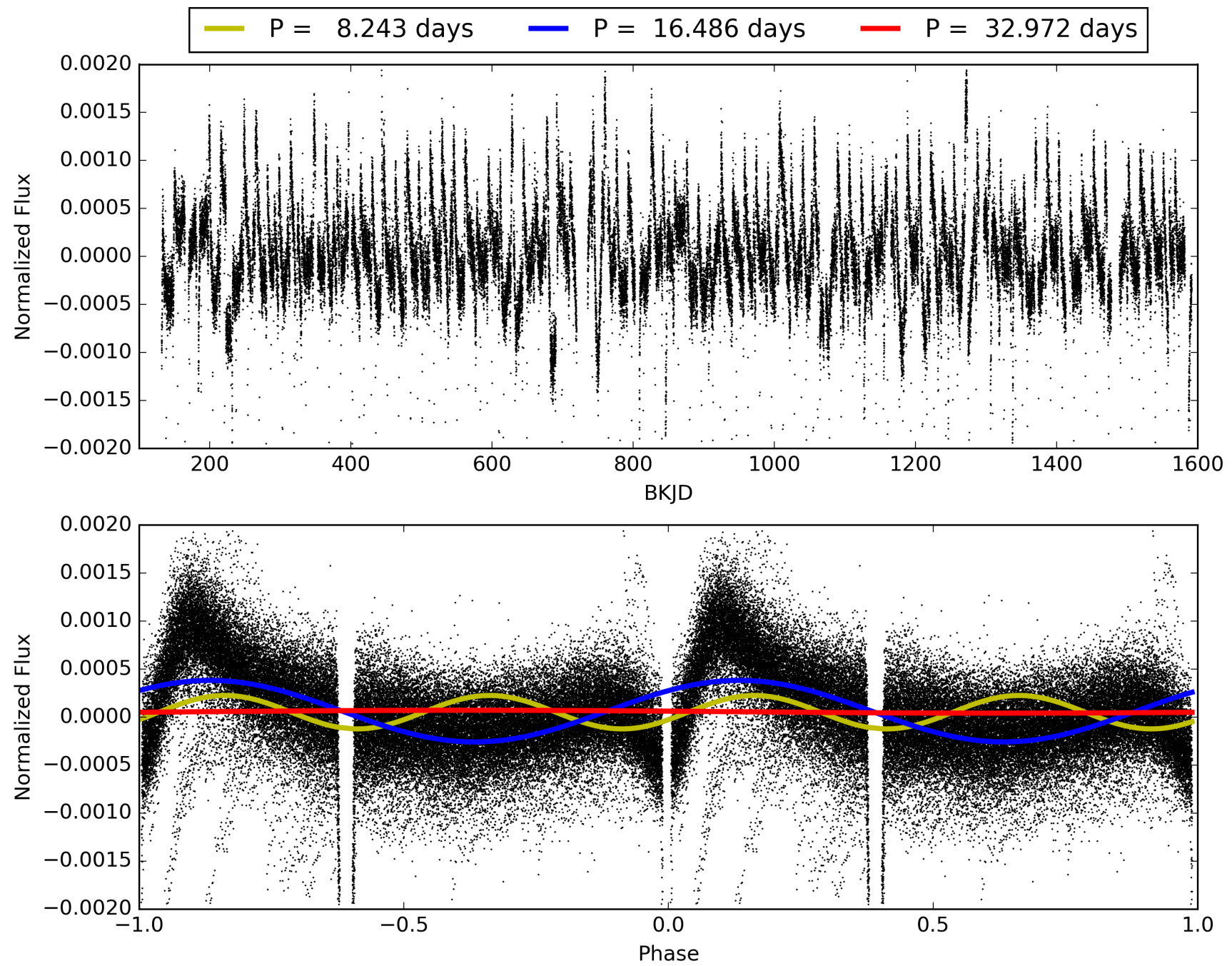
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:04:18 Z

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

TCE 006448768-03, PDC Light Curves

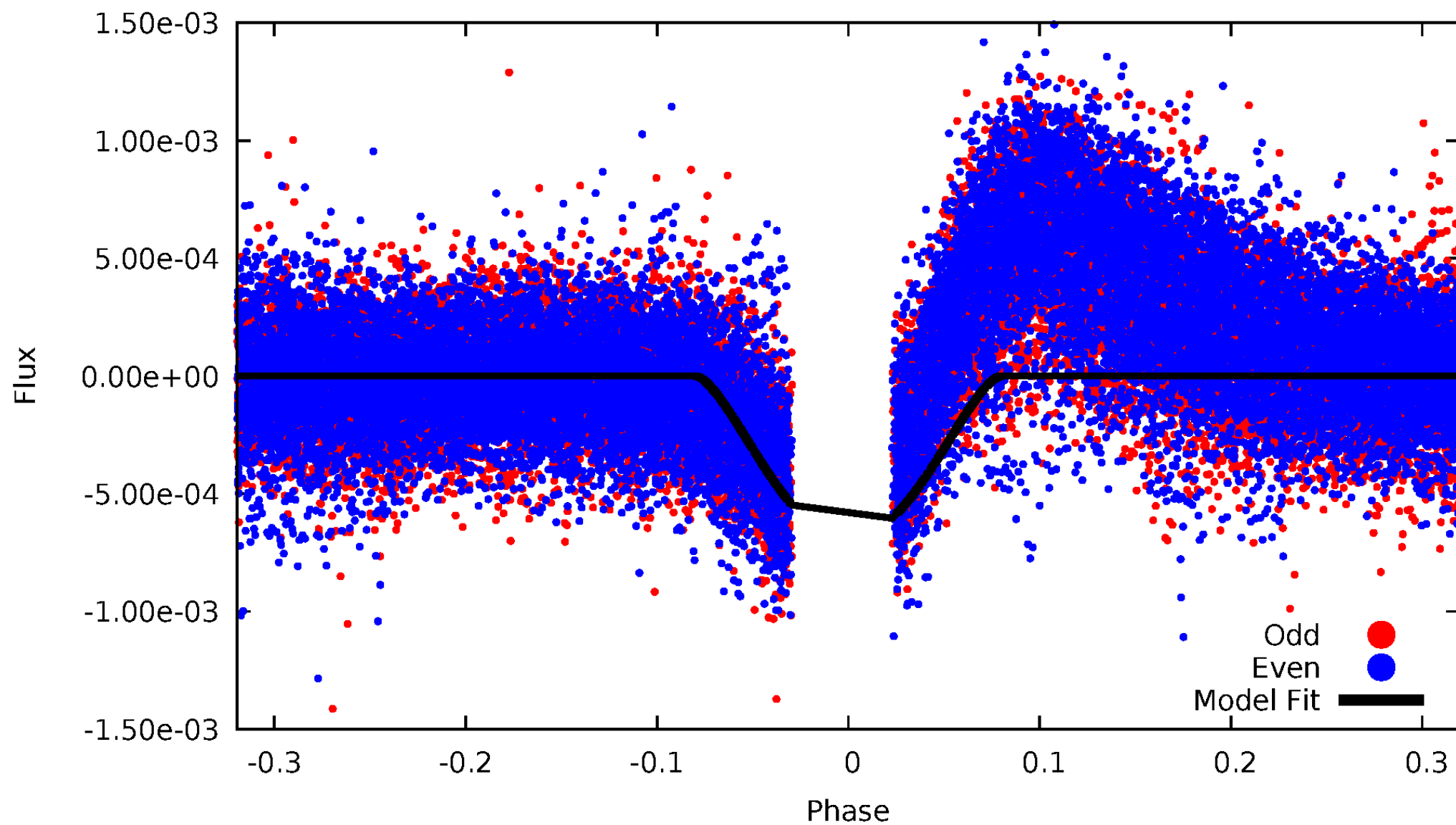


TCE 006448768-03



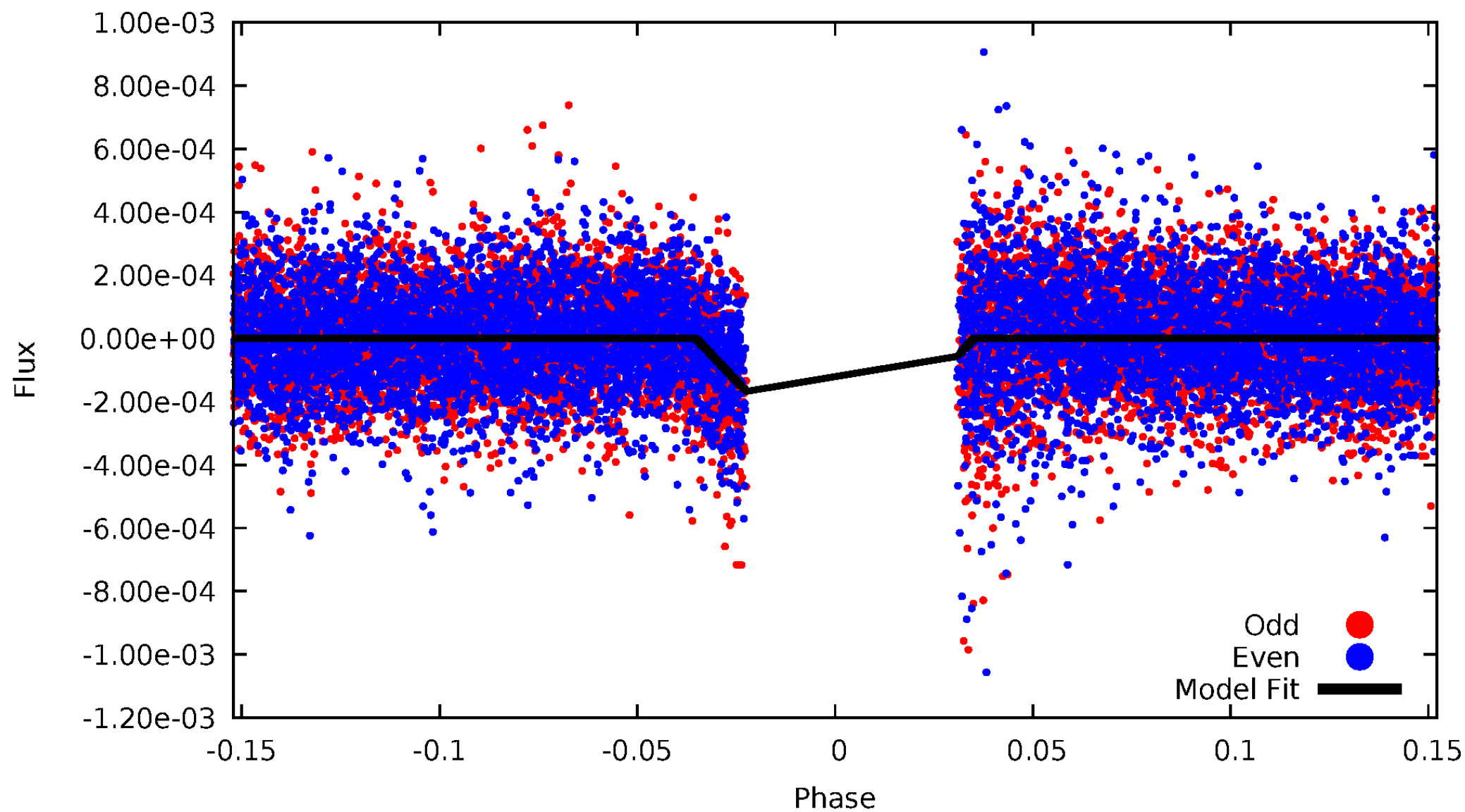
DV Odd/Even

TCE 006448768-03



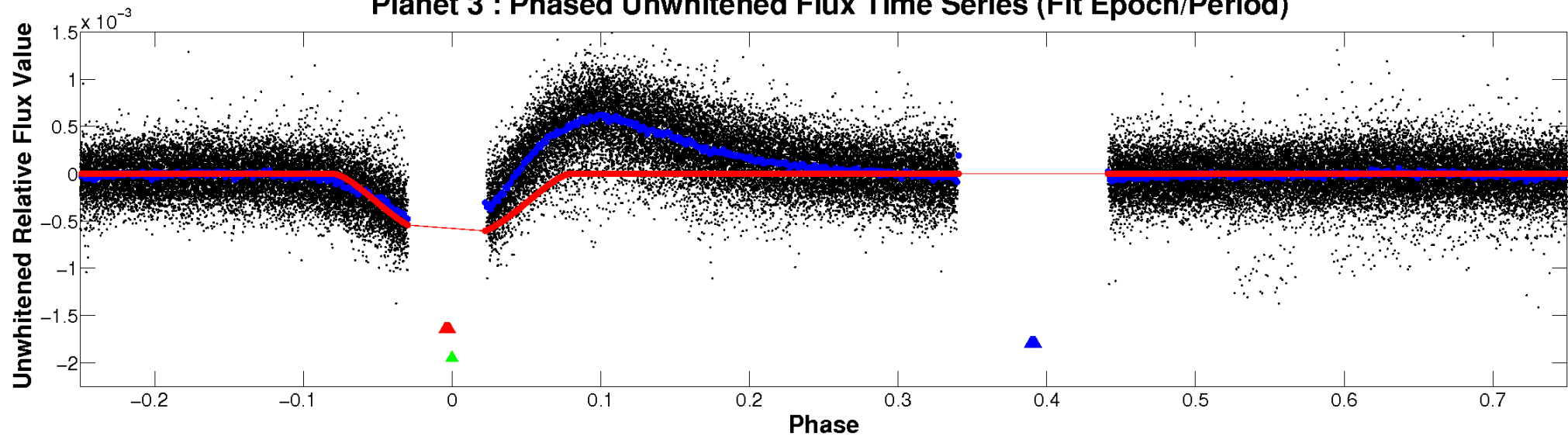
ALT Odd/Even

TCE 006448768-03

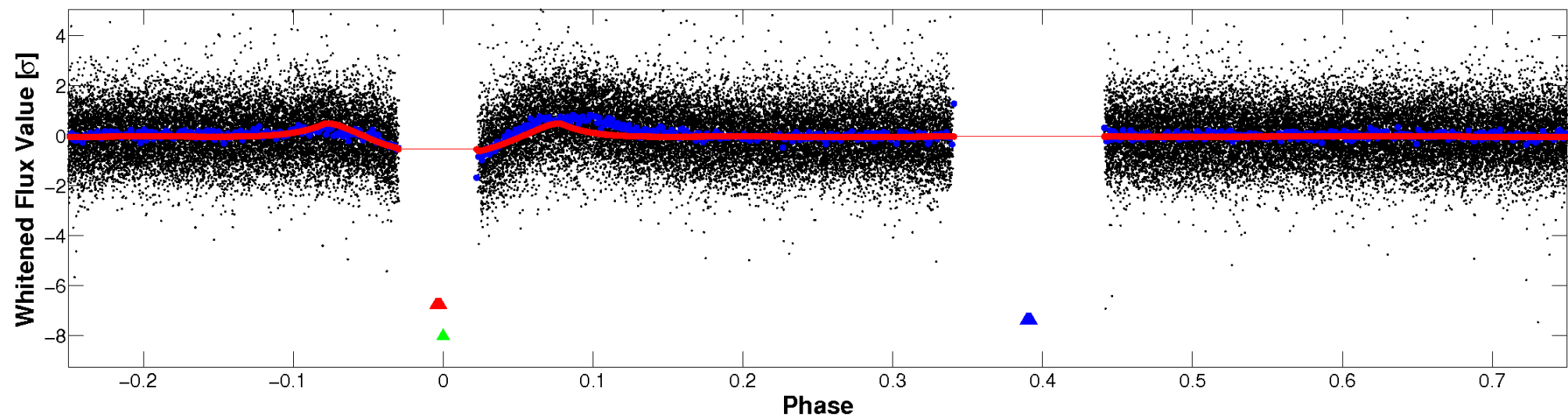


Non-Whitened Vs. Whitened Light Curve

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

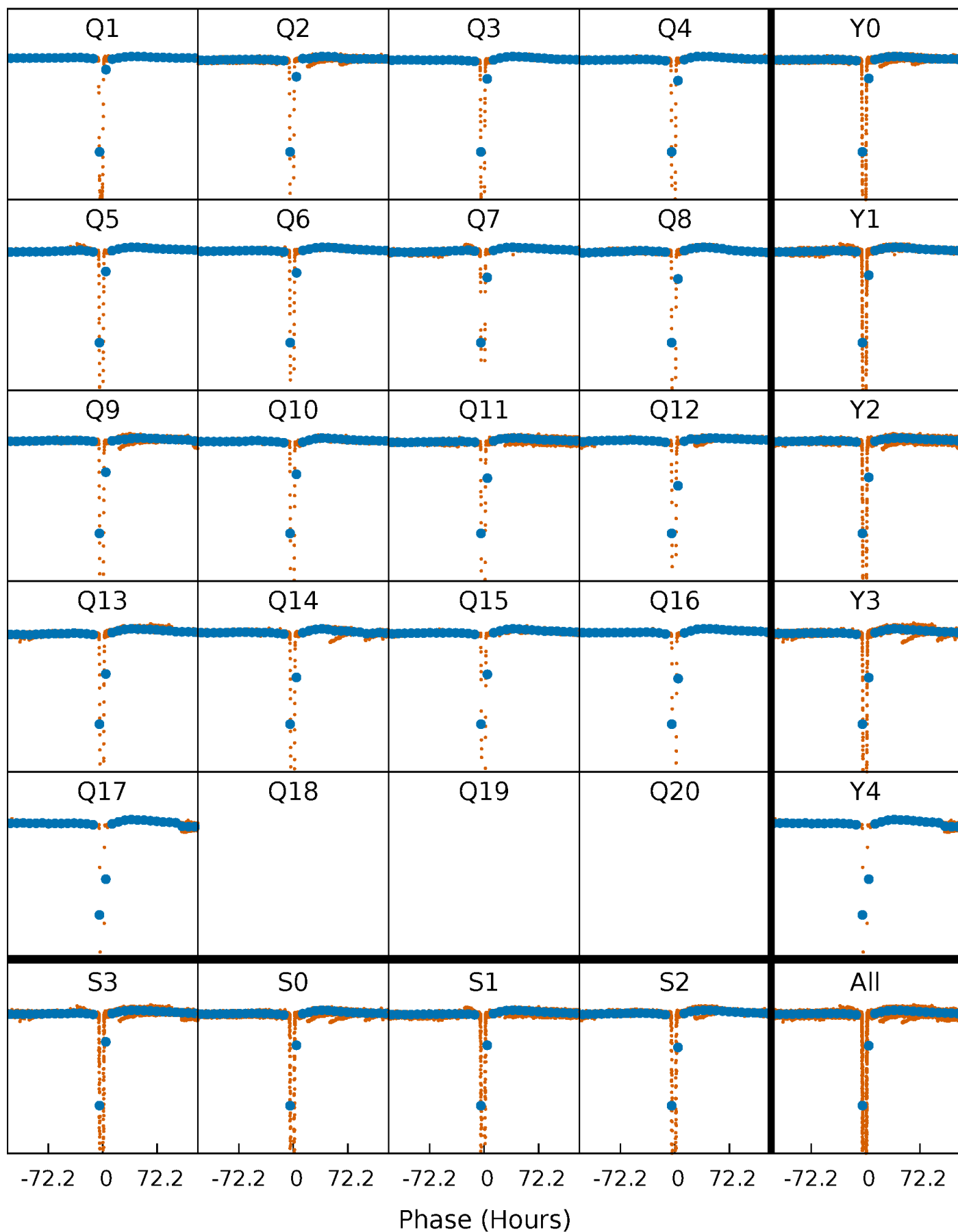


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



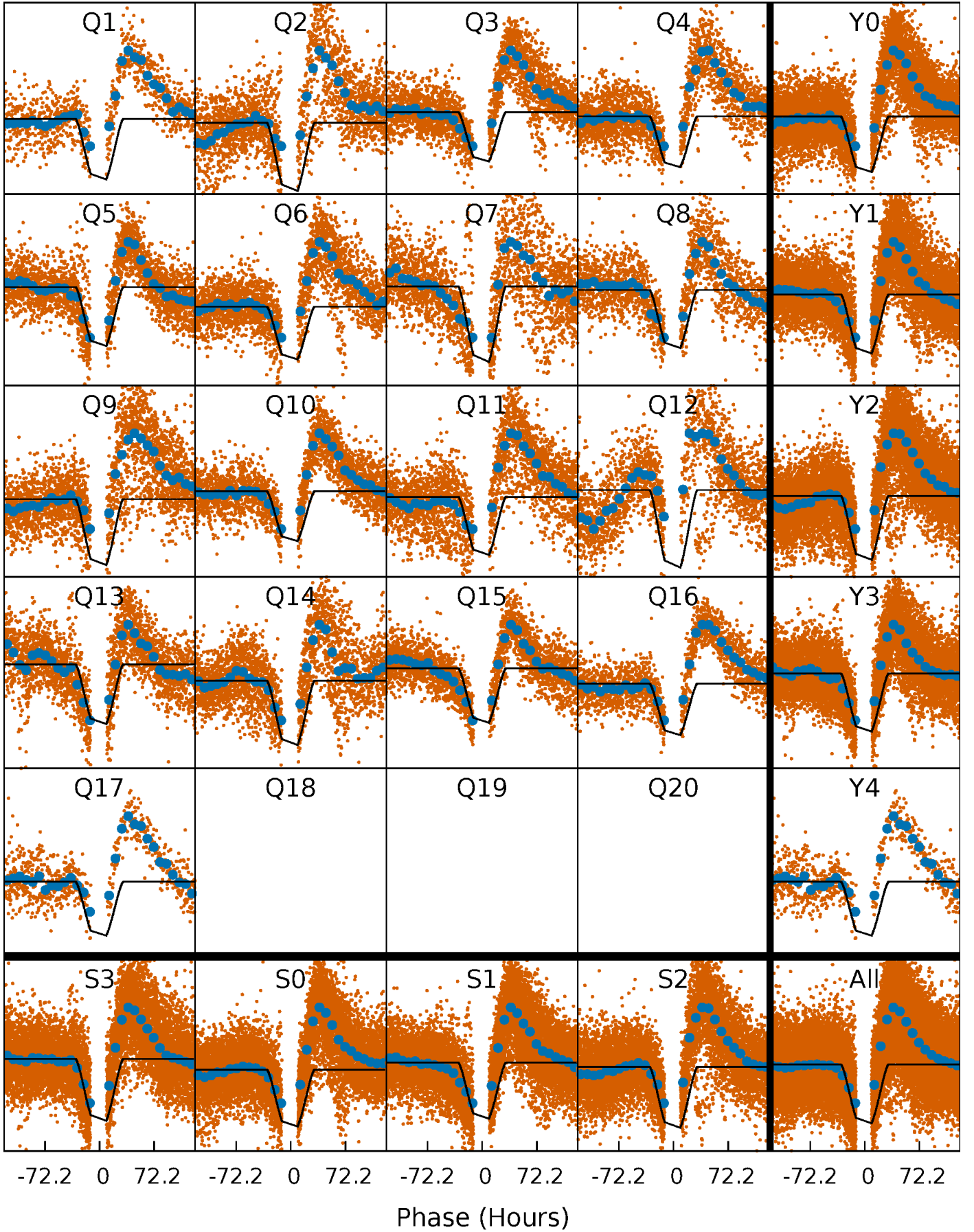
PDC Quarter-Phased Transit Curves

TCE 006448768-03 P= 16.486202 Days $T_0=131.683134$ (BKJD)



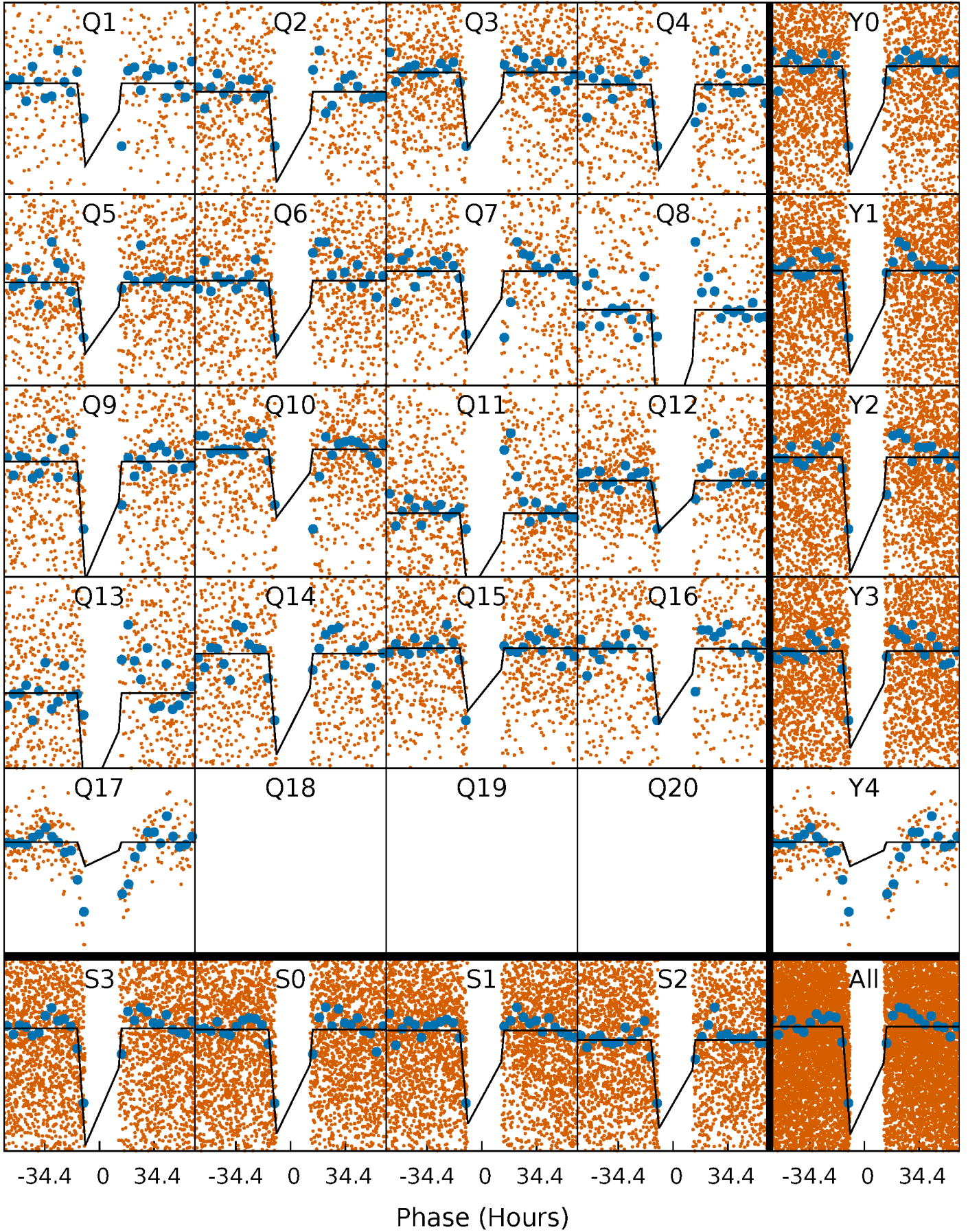
DV Quarter-Phased Transit Curves

TCE 006448768-03 P= 16.486202 Days $T_0=131.683134$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

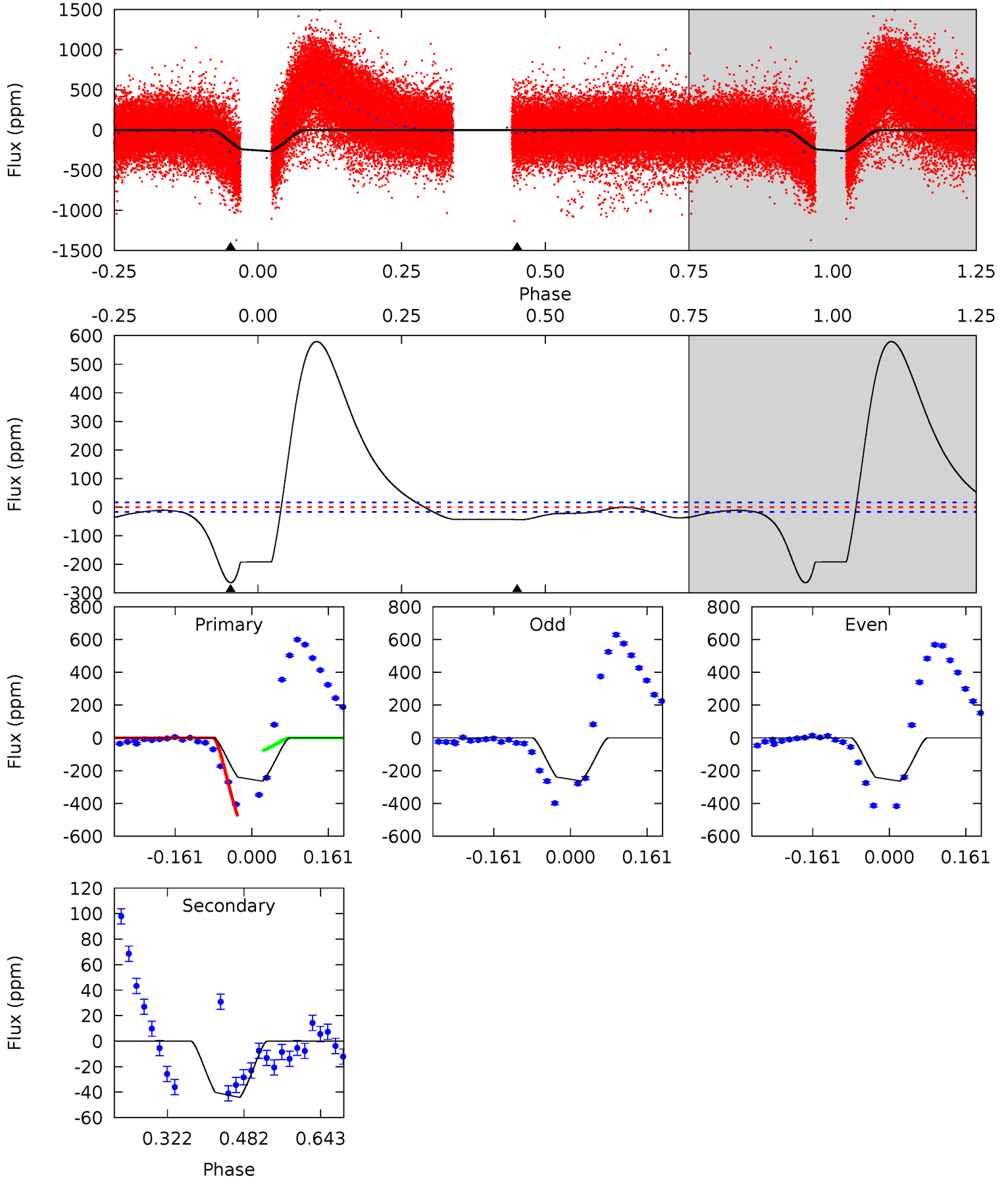
TCE 006448768-03 P= 16.486411 Days $T_0=131.551239$ (BKJD)



DV Model-Shift Uniqueness Test

006448768-03, P = 16.486202 Days, E = 131.683134 Days

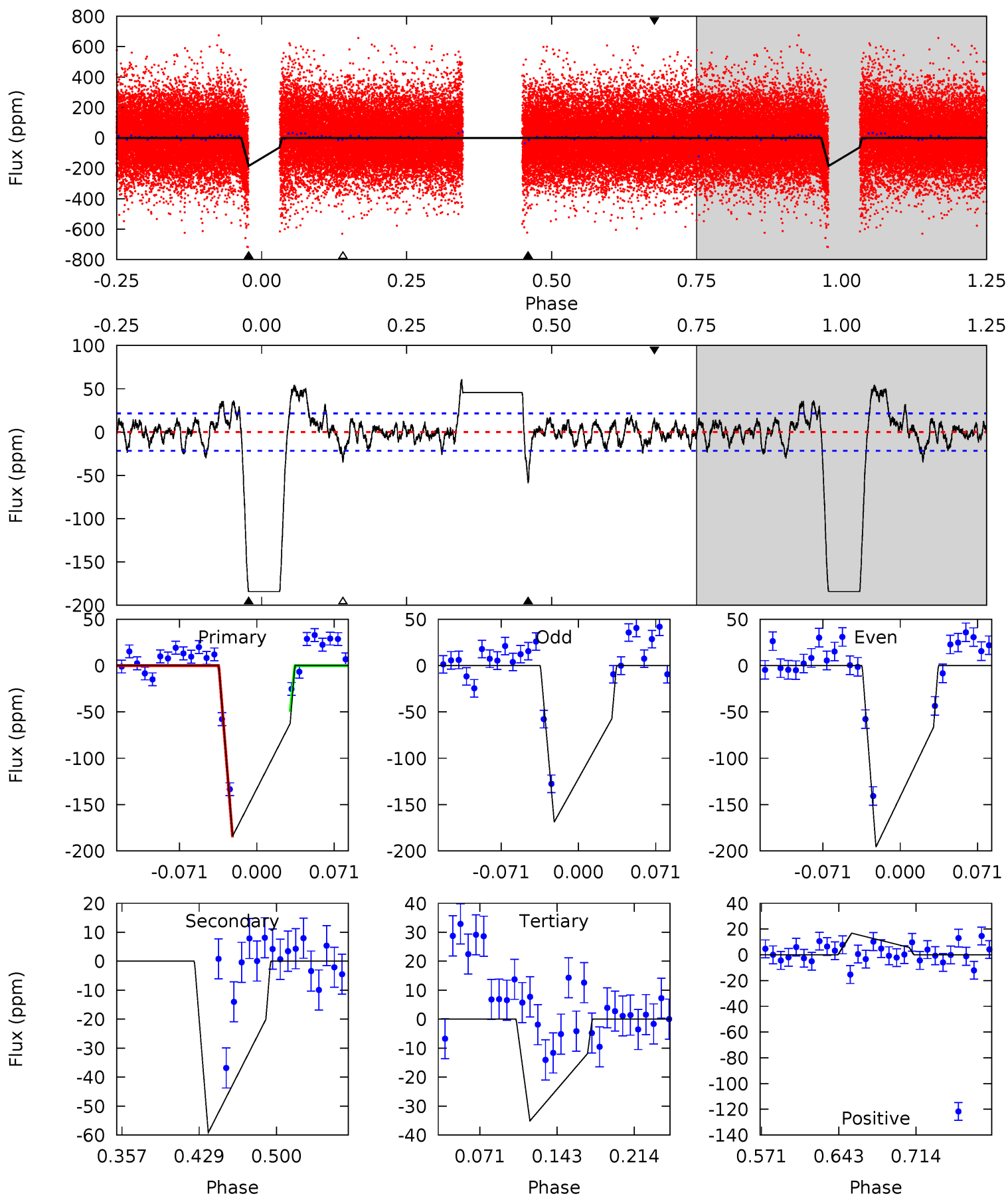
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
70.5	11.8	0	0	4.46	1.40	45.4	70.5	70.5	11.8	11.8	0.19	1.12	0.69	71.0



Alt Model-Shift Uniqueness Test

006448768-03, P = 16.486411 Days, E = 131.551239 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.5	12.7	7.53	3.60	4.63	1.80	3.06	32.0	35.9	5.17	9.10	2.91	1.05	0.25	12.4



Stellar Parameters For KIC 006448768

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6020^{+81}_{-81}	$3.860^{+0.224}_{-0.096}$	$-0.240^{+0.150}_{-0.150}$	$2.097^{+0.311}_{-0.622}$	$1.162^{+0.106}_{-0.172}$	$0.177^{+0.251}_{-0.052}$
	+1%/-1%	+6%/-2%	+62%/-62%	+15%/-30%	+9%/-15%	+142%/-29%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 006448768-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-44 ± 4	$10.26^{+3.80}_{-3.67}$	1466^{+62}_{-103}	2937^{+374}_{-256}	$4.098^{+5.828}_{-1.979}$
Alt.	-59 ± 5	$4.32^{+3.25}_{-2.41}$	1458^{+72}_{-92}	4067^{+1602}_{-711}	31^{+132}_{-21}

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

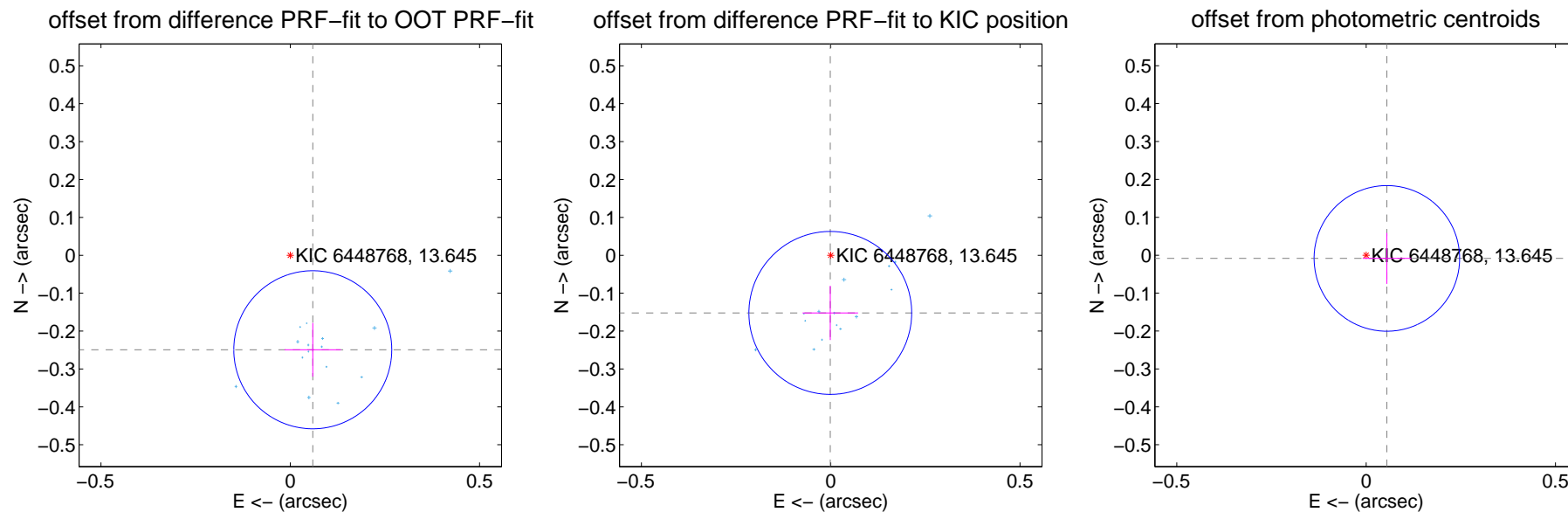
DV Centroid Data

Supplemental centroid analysis for 006448768-03. Kepler magnitude: 13.64. Transit SNR 31.85

There are 15 quarters with good PRF difference image offsets

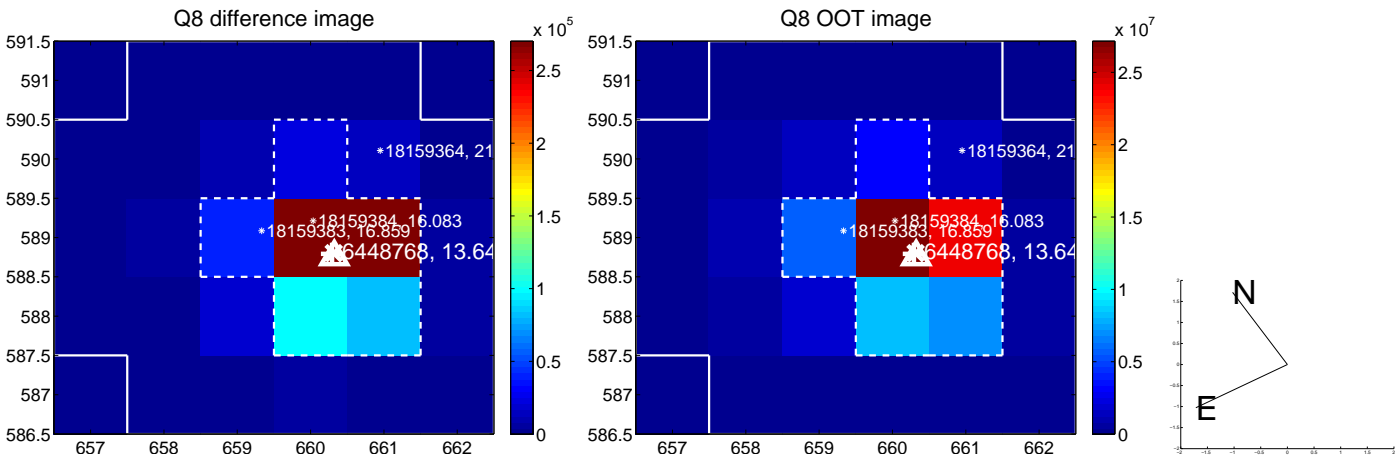
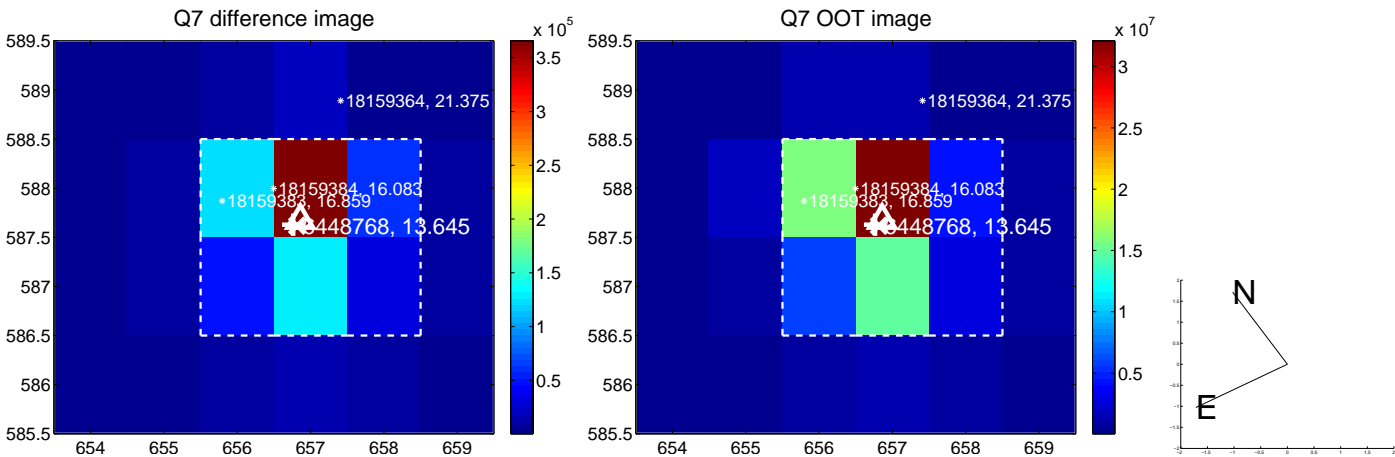
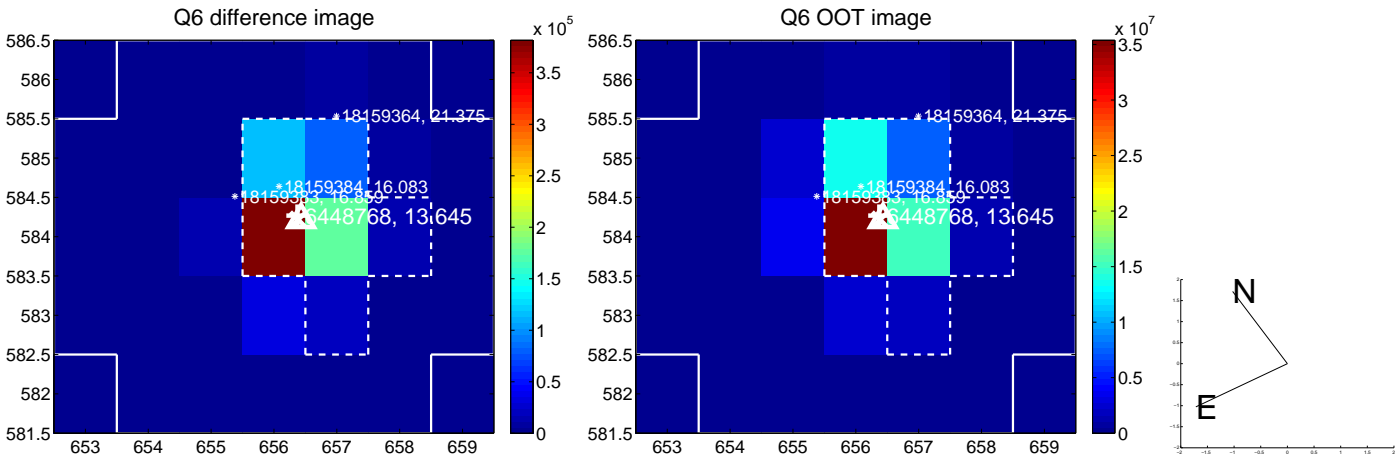
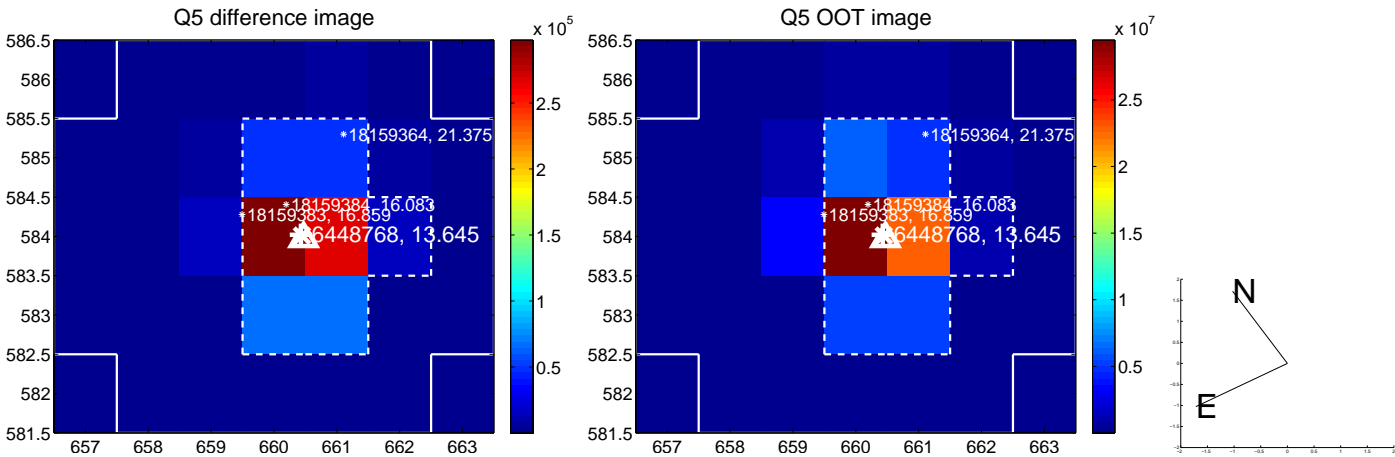
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.256 ± 0.070	3.69	-0.059 ± 0.074	-0.249 ± 0.071
PRF-fit source offset from KIC position	0.152 ± 0.072	2.12	0.001 ± 0.073	-0.152 ± 0.072
photometric centroid source offset	0.06 ± 0.06	0.86	-0.05 ± 0.06	-0.01 ± 0.07

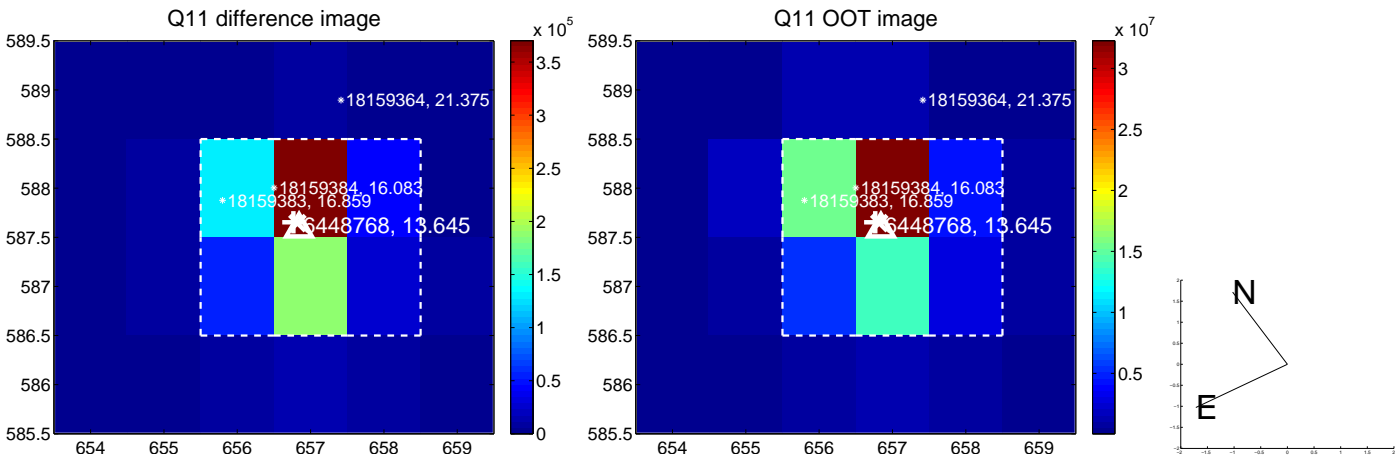
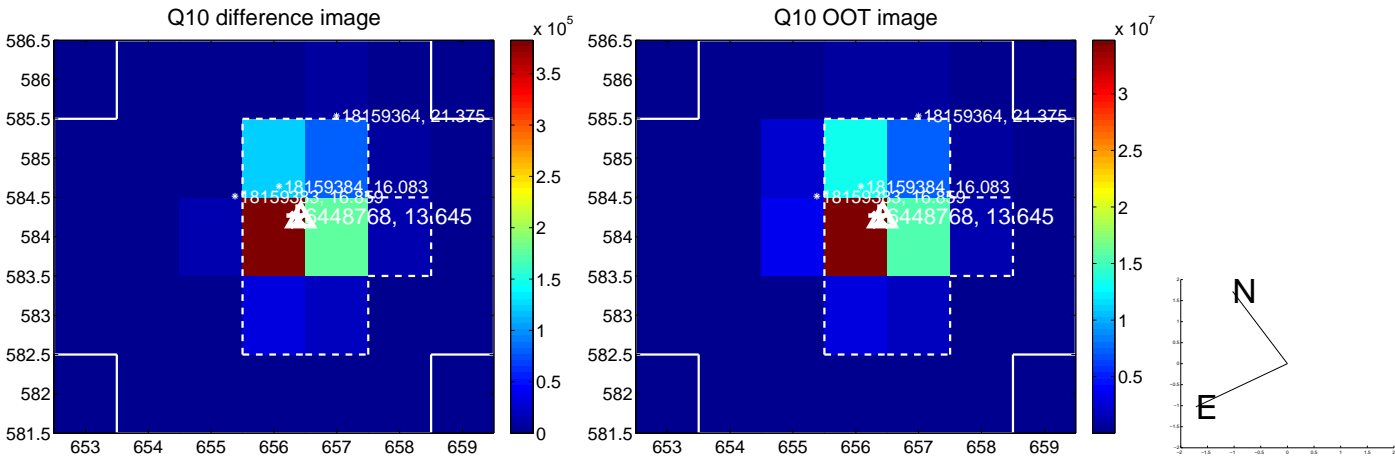
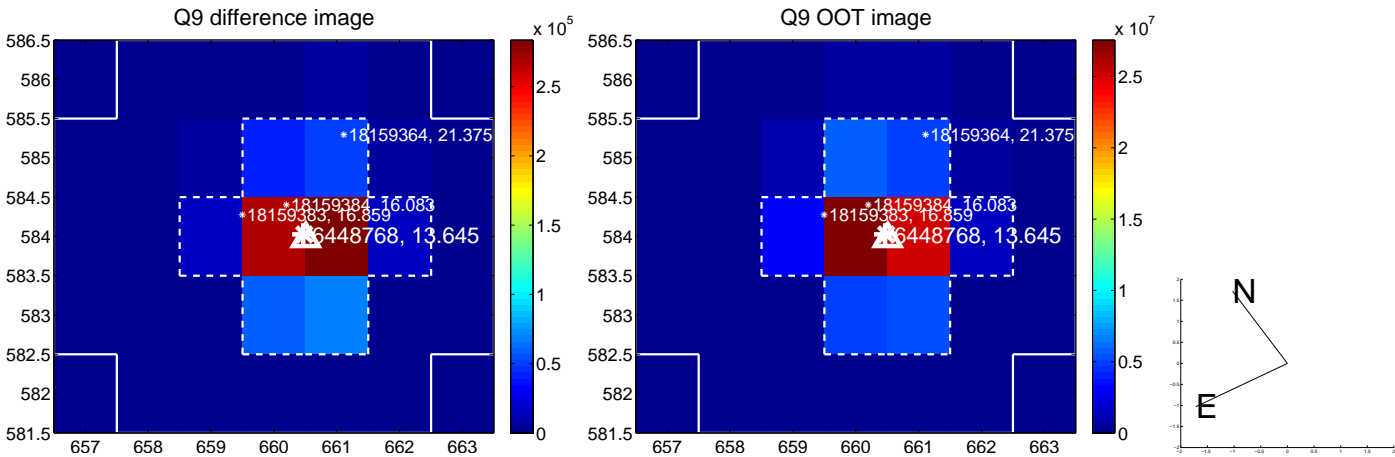


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

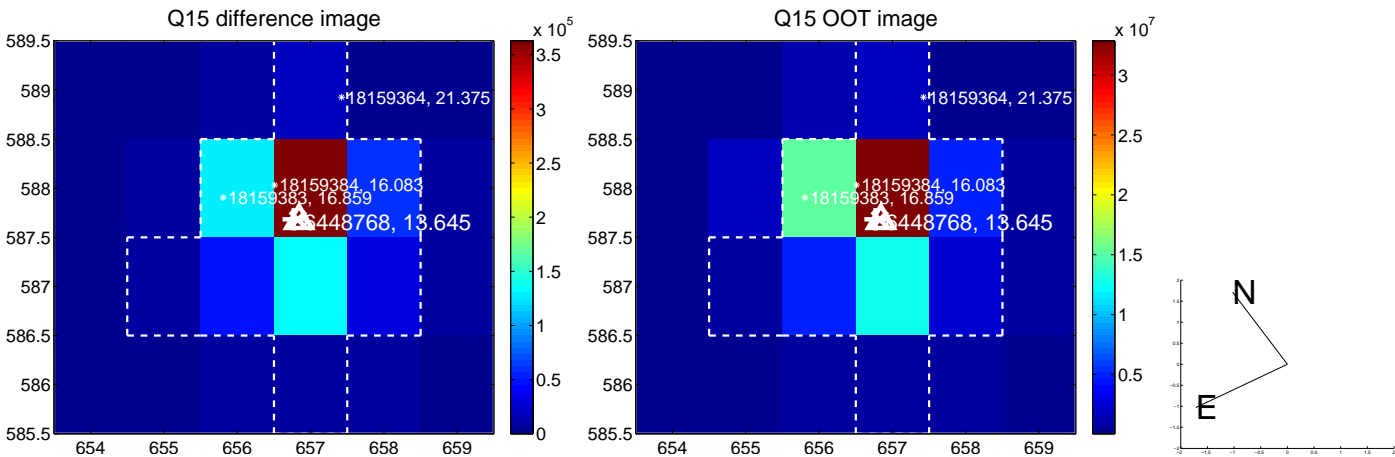
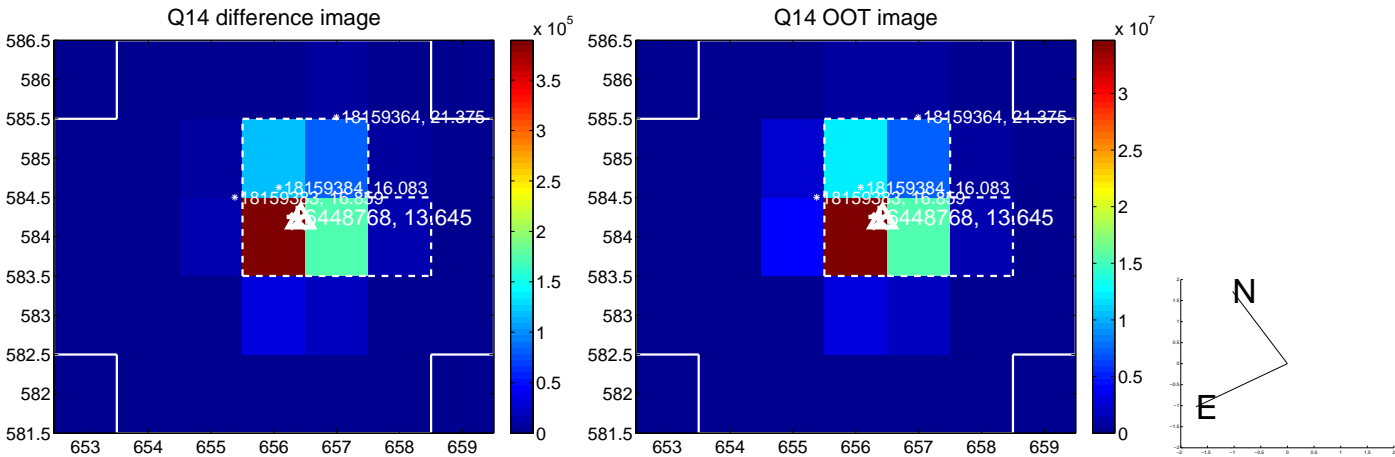
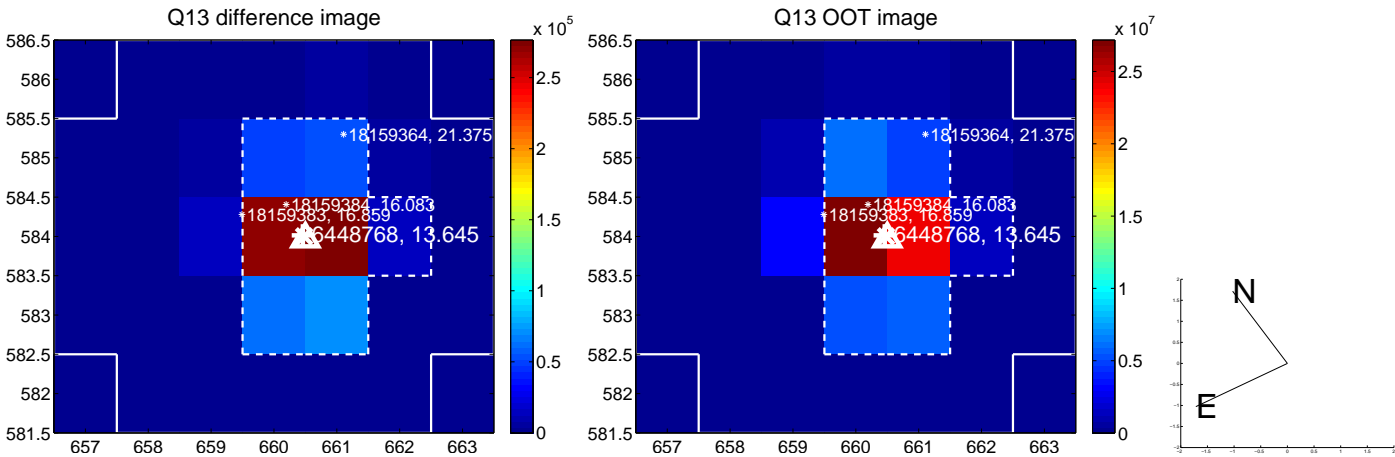
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



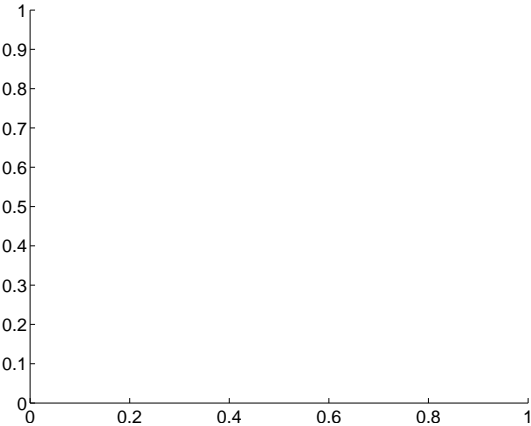
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



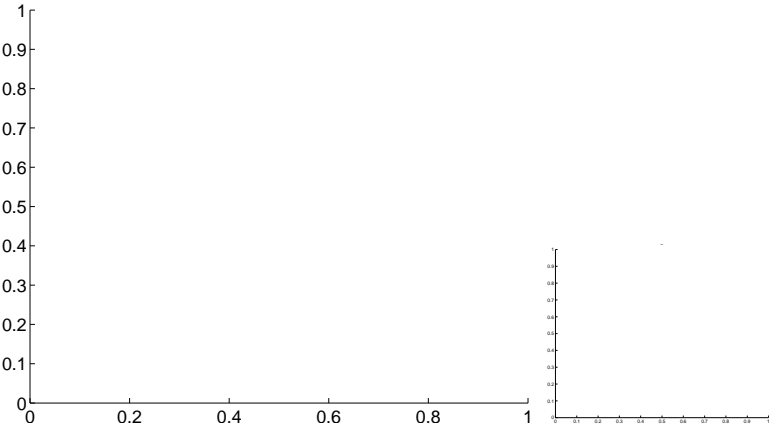
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



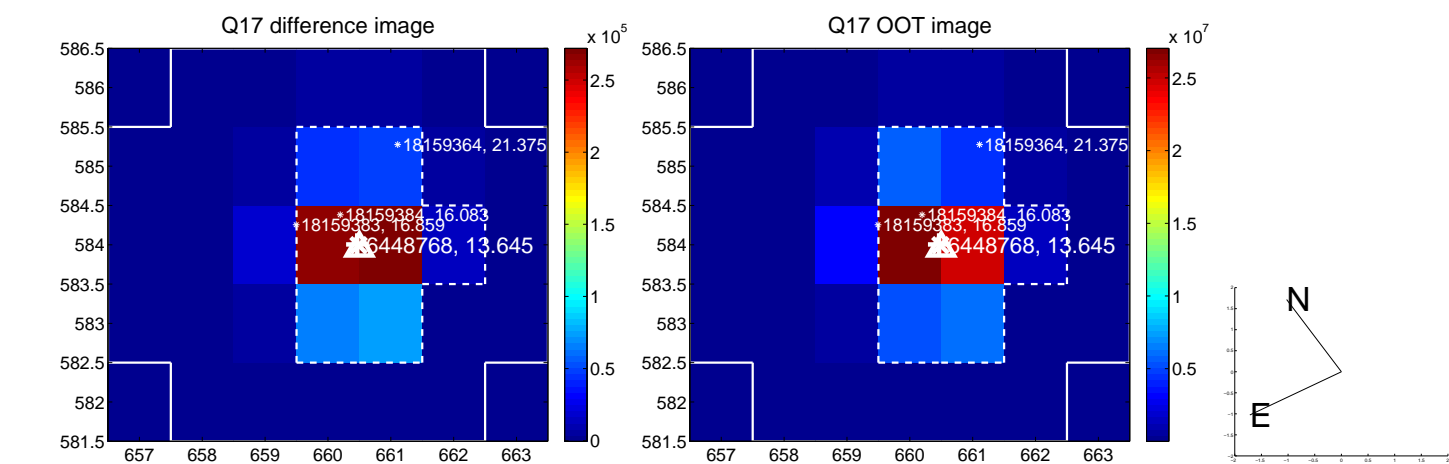
Q16 no difference image



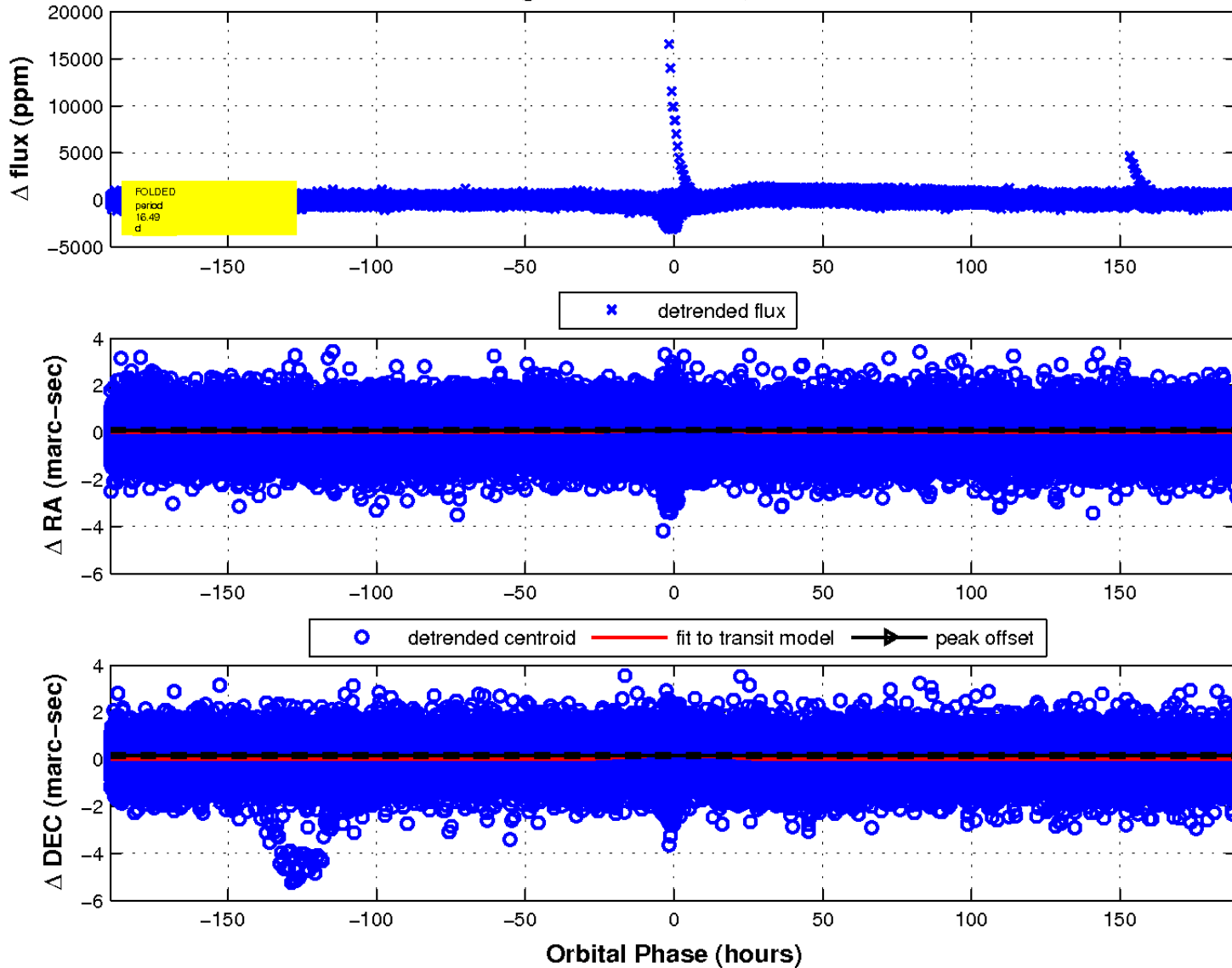
Q16 no OOT image



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

