

KIC 011506768

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})
011506768-01	OBS	No	1.395228	132.347700	17.8	3.520	11.2	8.2	2.97	6845	1.46	20500.07
011506768-02	OBS	No	129.025038	248.021072	87.2	16.450	7.6	5.0	2.97	6845	3.05	49.02
011506768-03	OBS	No	229.968928	244.357894	145.9	8.206	7.3	5.2	2.97	6845	3.96	22.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011506768-01	OBS	FP	0.00	1	0	0	0	LPP_ALT—MOD_NONUNIQ_ALT
011506768-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011506768-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

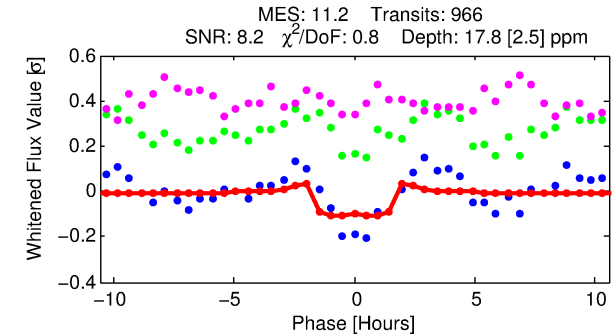
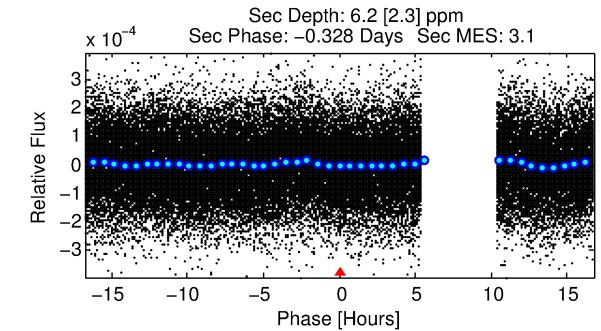
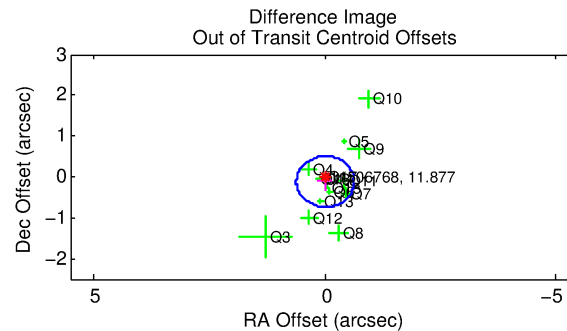
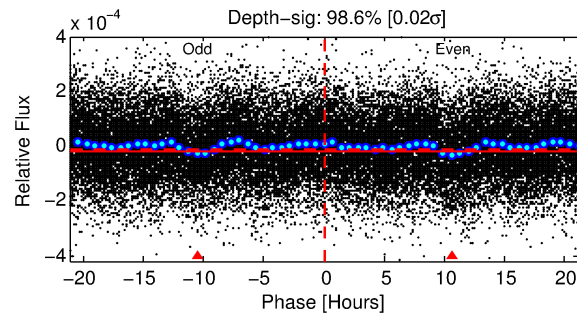
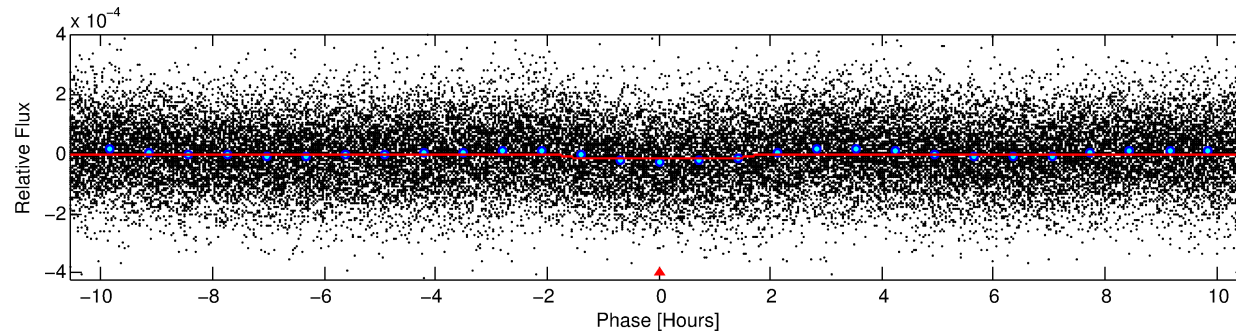
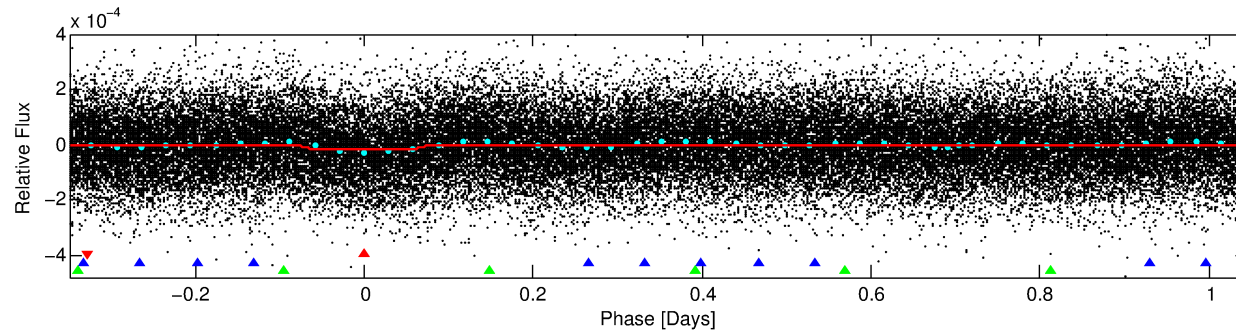
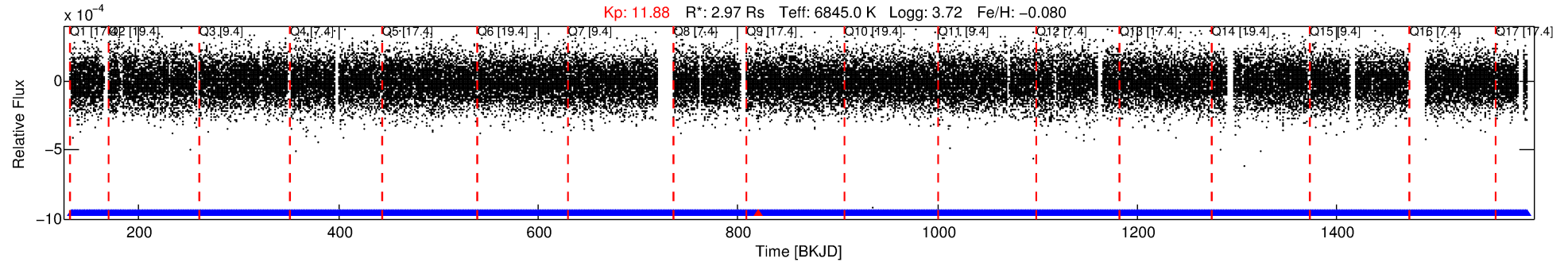
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011506768-01

No Significant Match Found

DV One-Page Summary

KIC: 11506768 Candidate: 1 of 3 Period: 1.395 d



DV Fit Results:

Period = 1.39523 [0.00001] d
Epoch = 132.3477 [0.0031] BKJD
 R_p/R^* = 0.0045 [0.0009]
 a/R^* = 1.64 [1.13]
 b = 0.90 [0.23]
 S_{eff} = 20500.07 [10997.74]
 T_{eq} = 3051 [409] K
 R_p = 1.46 [0.59] R_{e}
 a = 0.0291 [0.0097] AU
 A_g = 1.36 [1.01] [0.36 σ]
 T_{eff} = 5098 [690] K [2.55 σ]

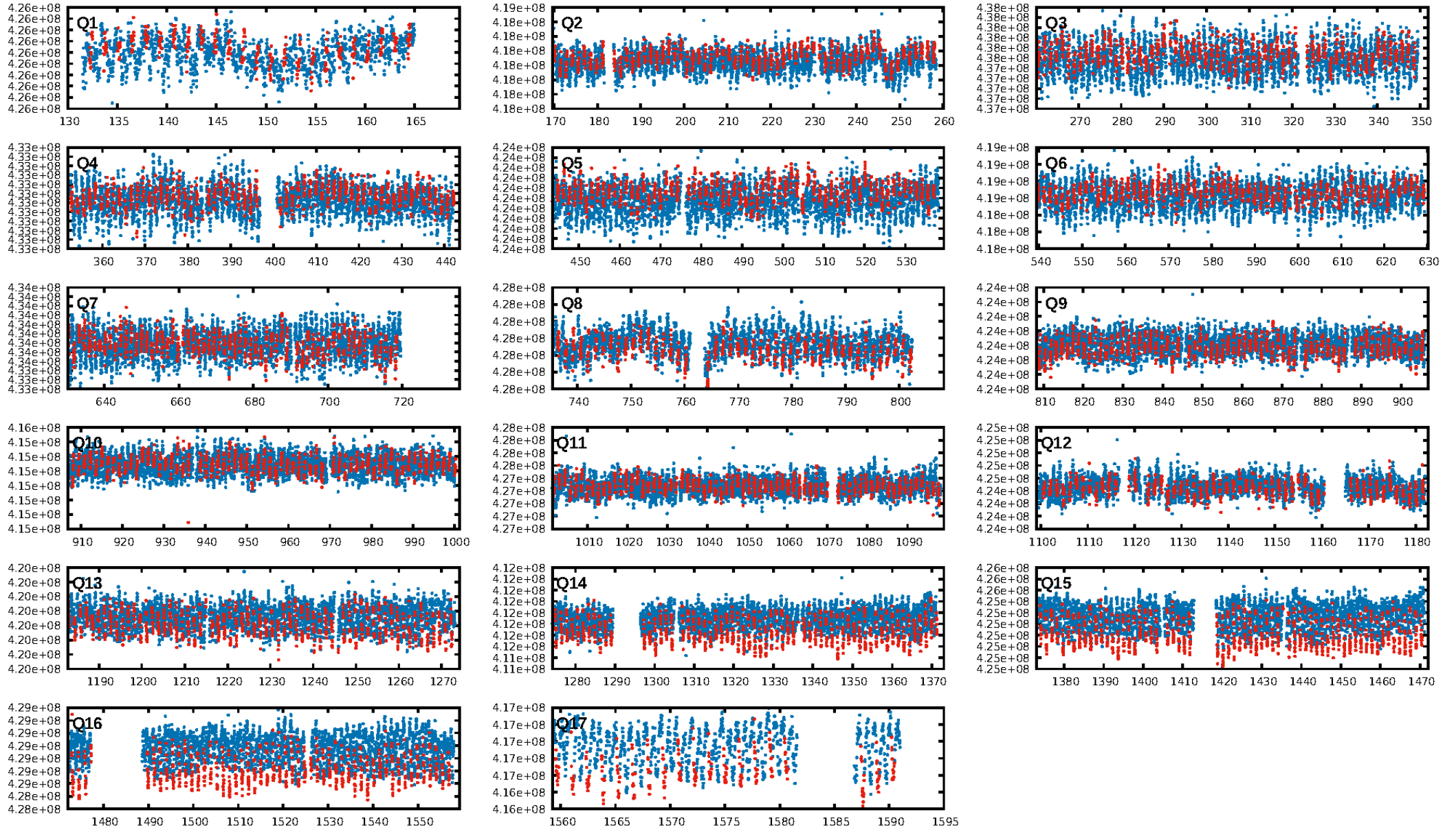
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [182.09 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.85e-22
RollingBand-fgt: 1.00 [922/923]
GhostDiagnostic-chr: 7.093
Centroid-sig: 0.0%
Centroid-so: 1.951 arcsec [3.38 σ]
OotOffset-rm: 0.117 arcsec [0.56 σ]
KicOffset-rm: 0.270 arcsec [1.30 σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.73 [11/15]
DiffImageOverlap-fno: 1.00 [17/17]

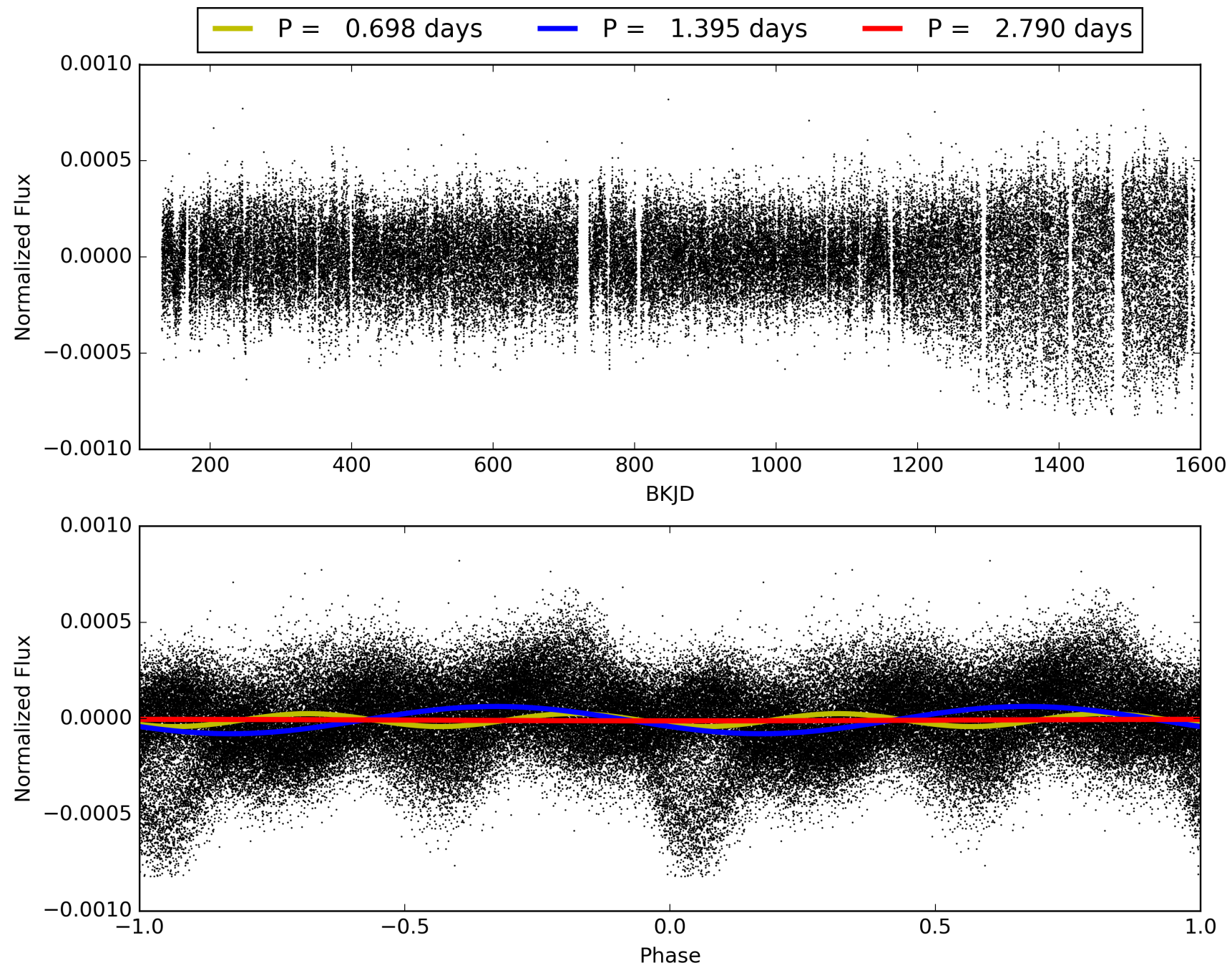
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011506768-01, PDC Light Curves

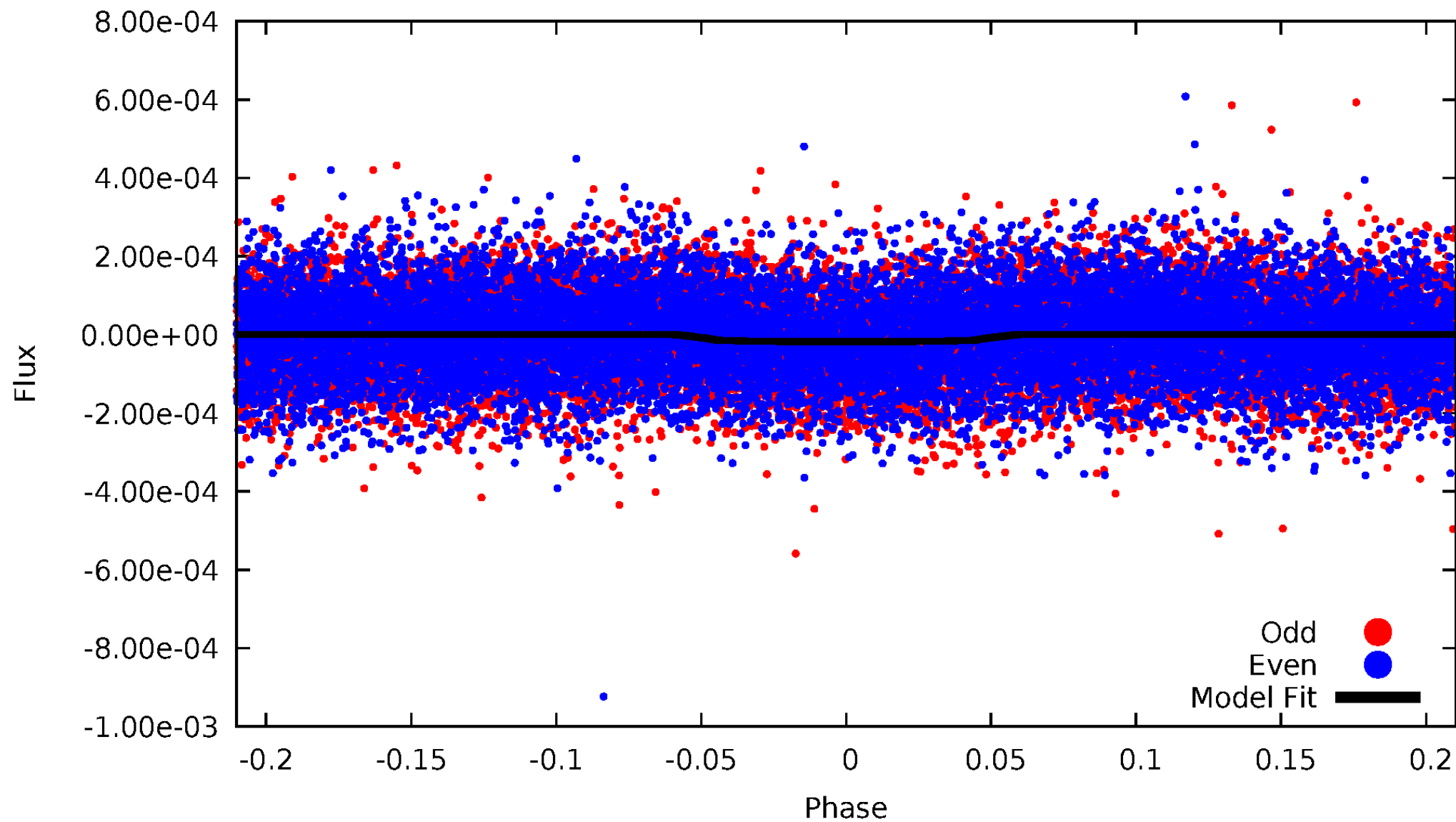


TCE 011506768-01



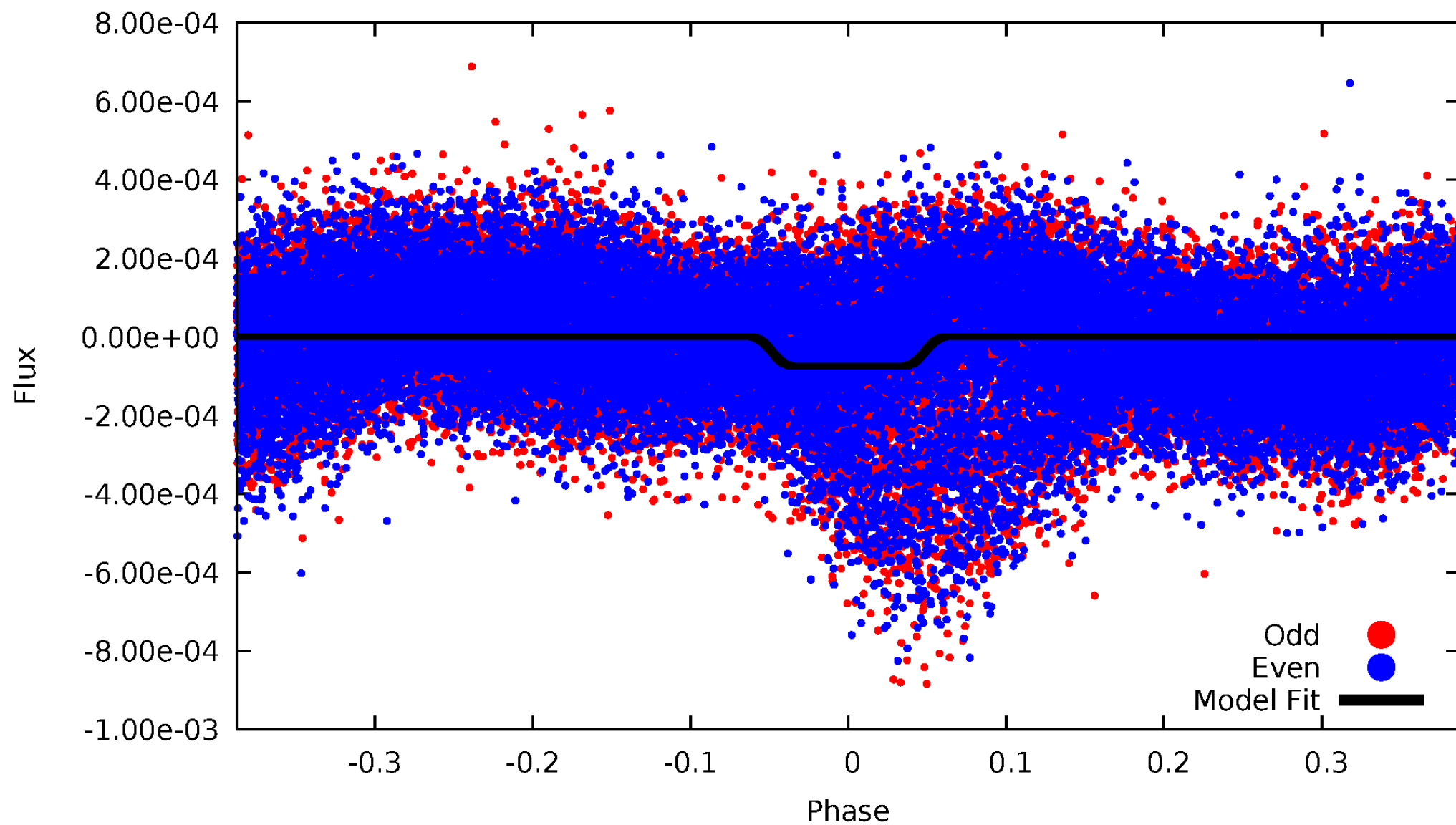
DV Odd/Even

TCE 011506768-01

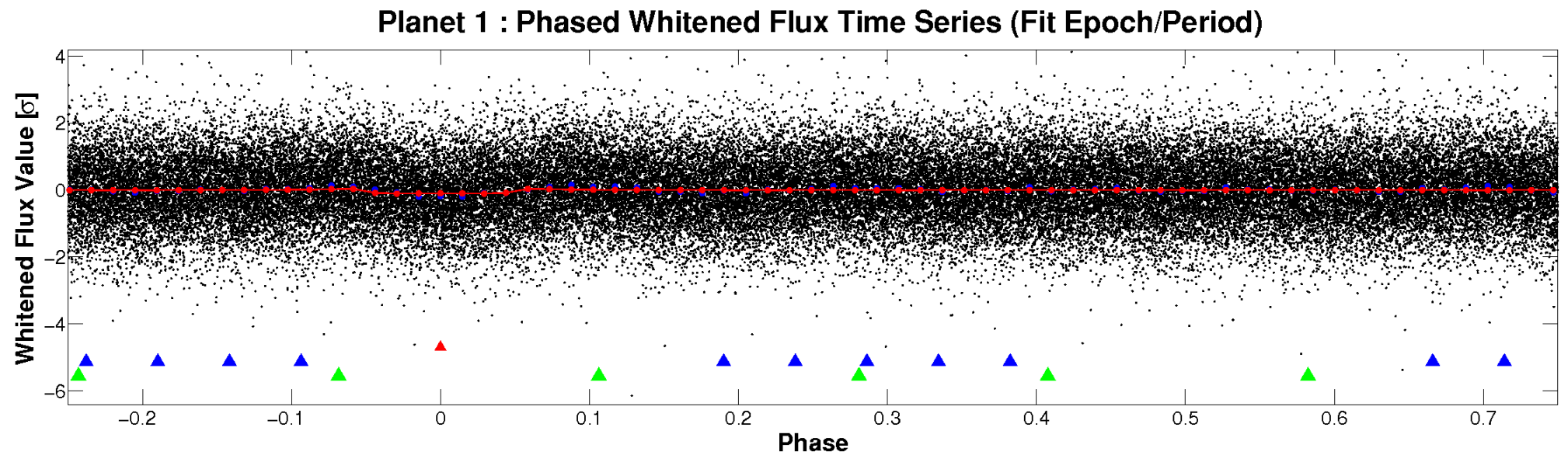
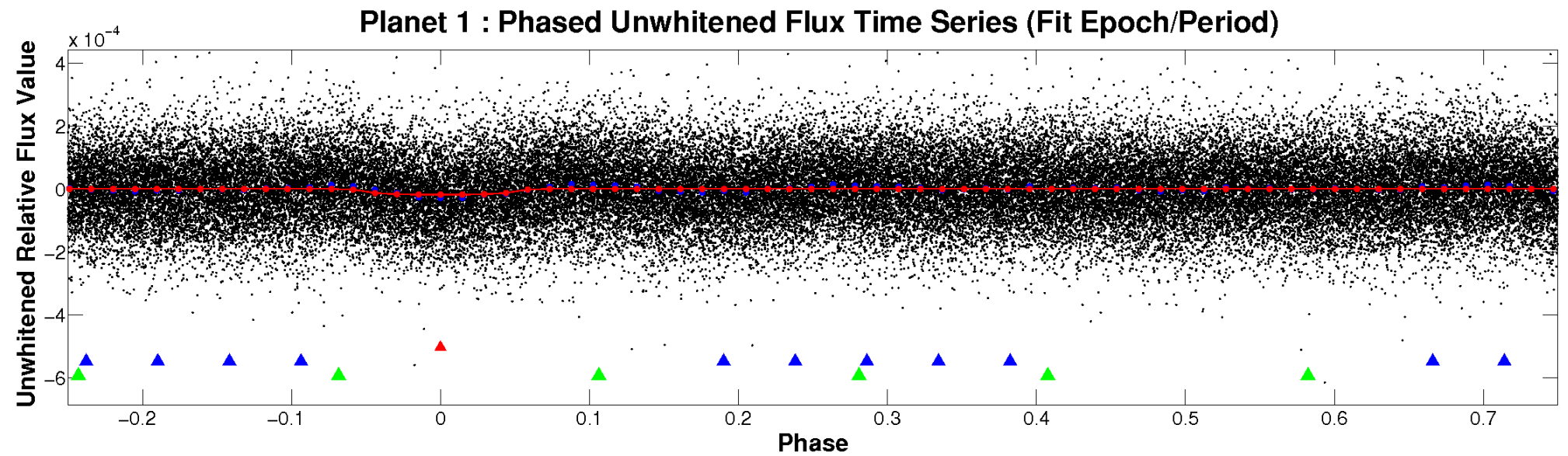


ALT Odd/Even

TCE 011506768-01

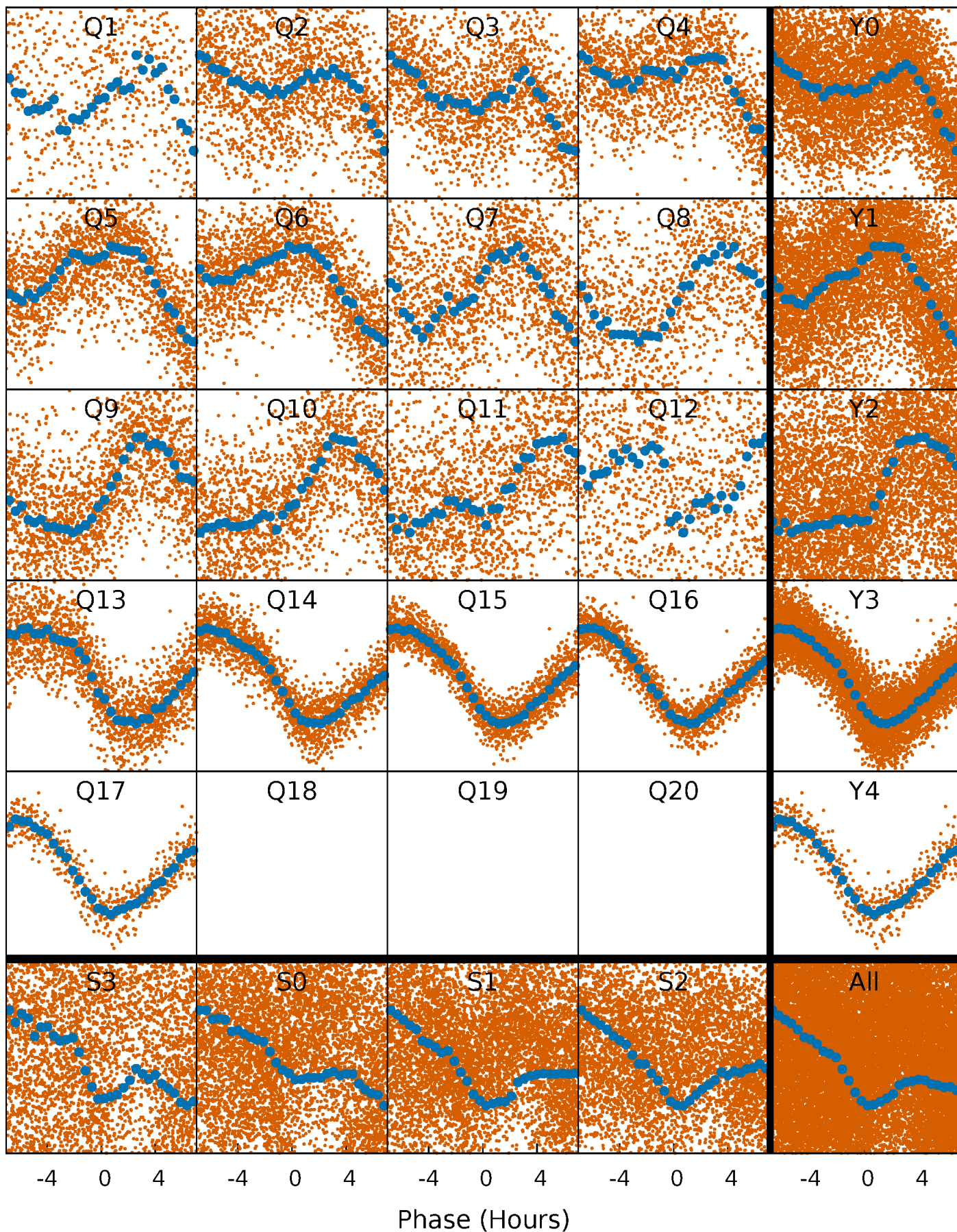


Non-Whitened Vs. Whitened Light Curve



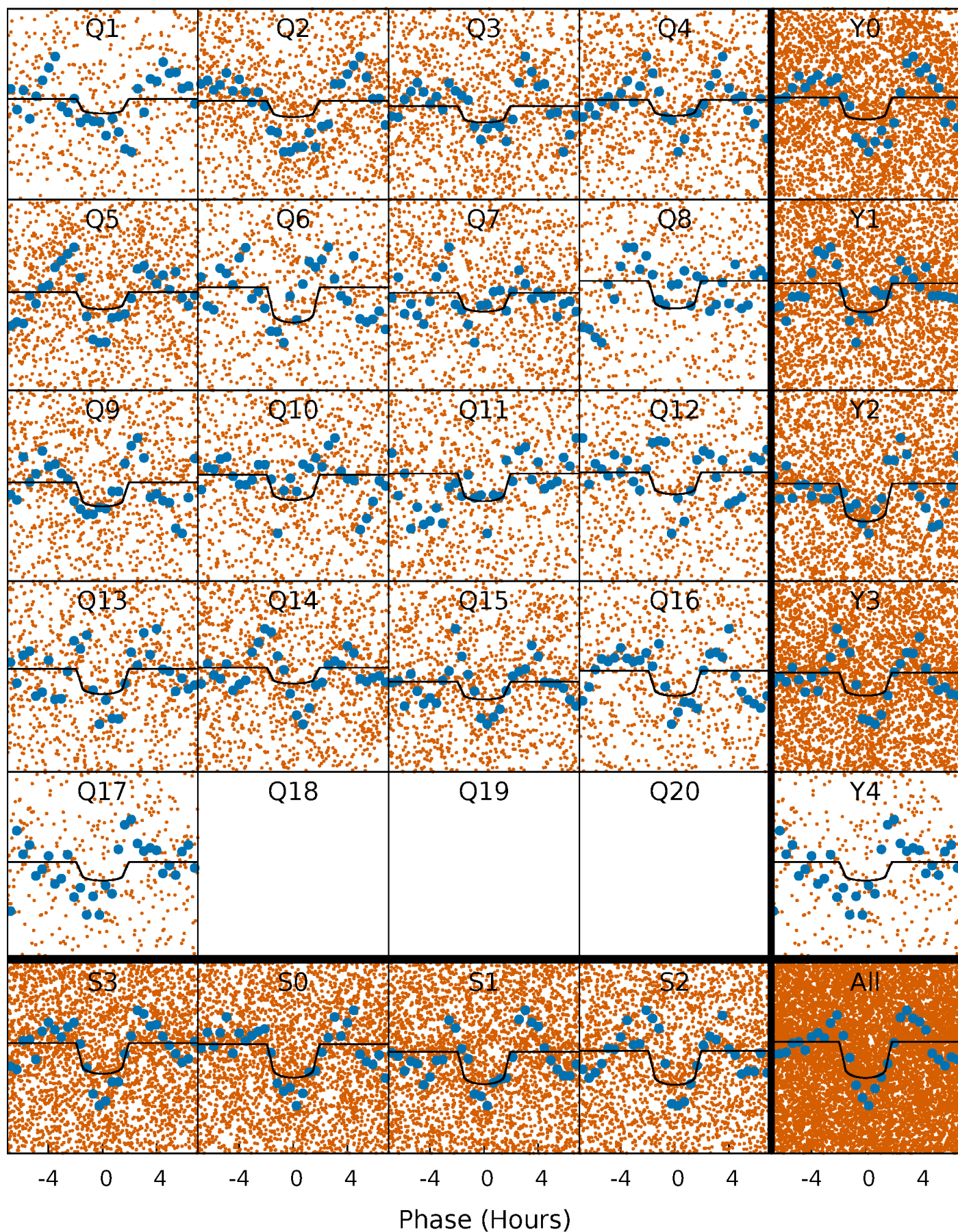
PDC Quarter-Phased Transit Curves

TCE 011506768-01 P= 1.395228 Days $T_0=132.347700$ (BKJD)



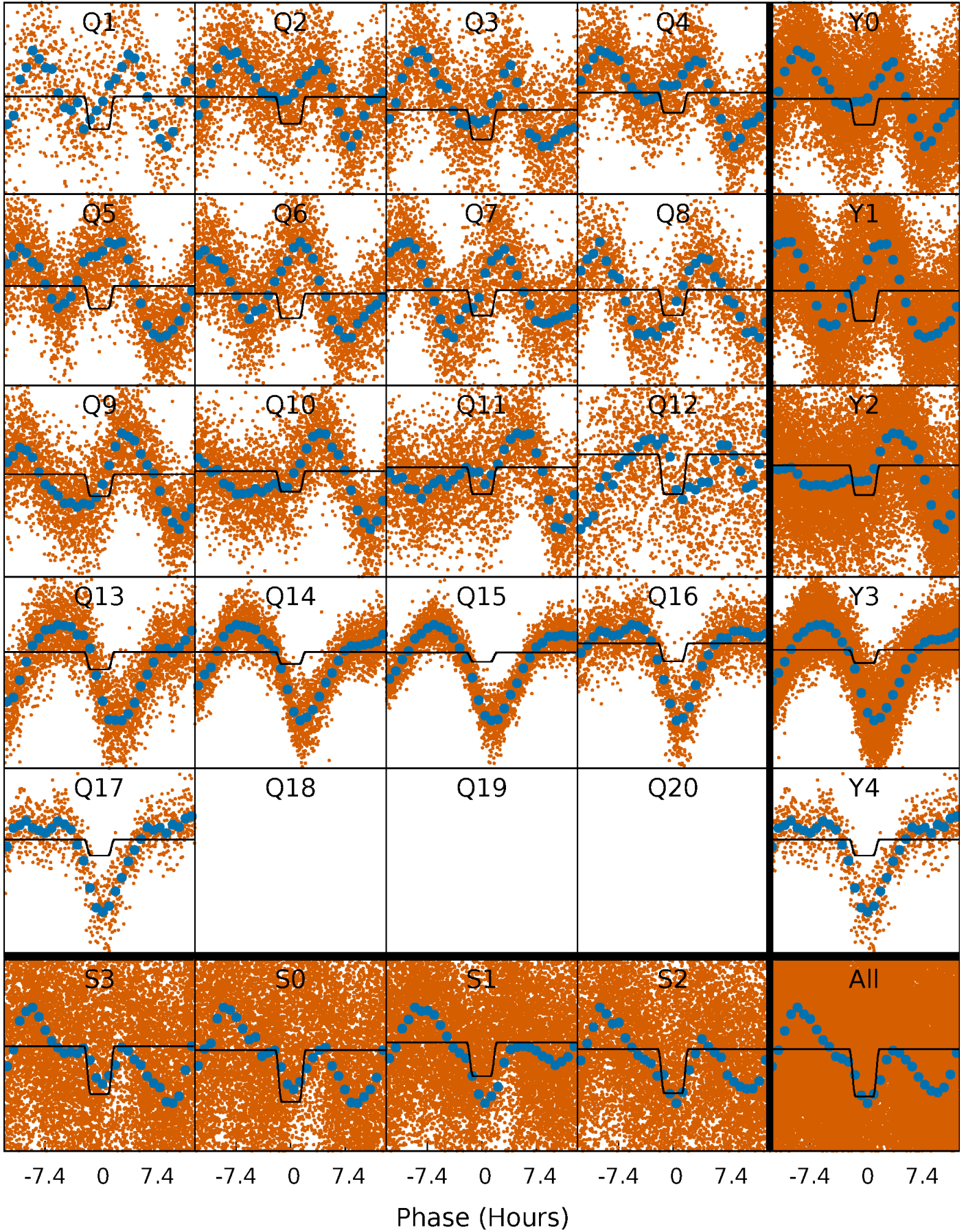
DV Quarter-Phased Transit Curves

TCE 011506768-01 P= 1.395228 Days $T_0=132.347700$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

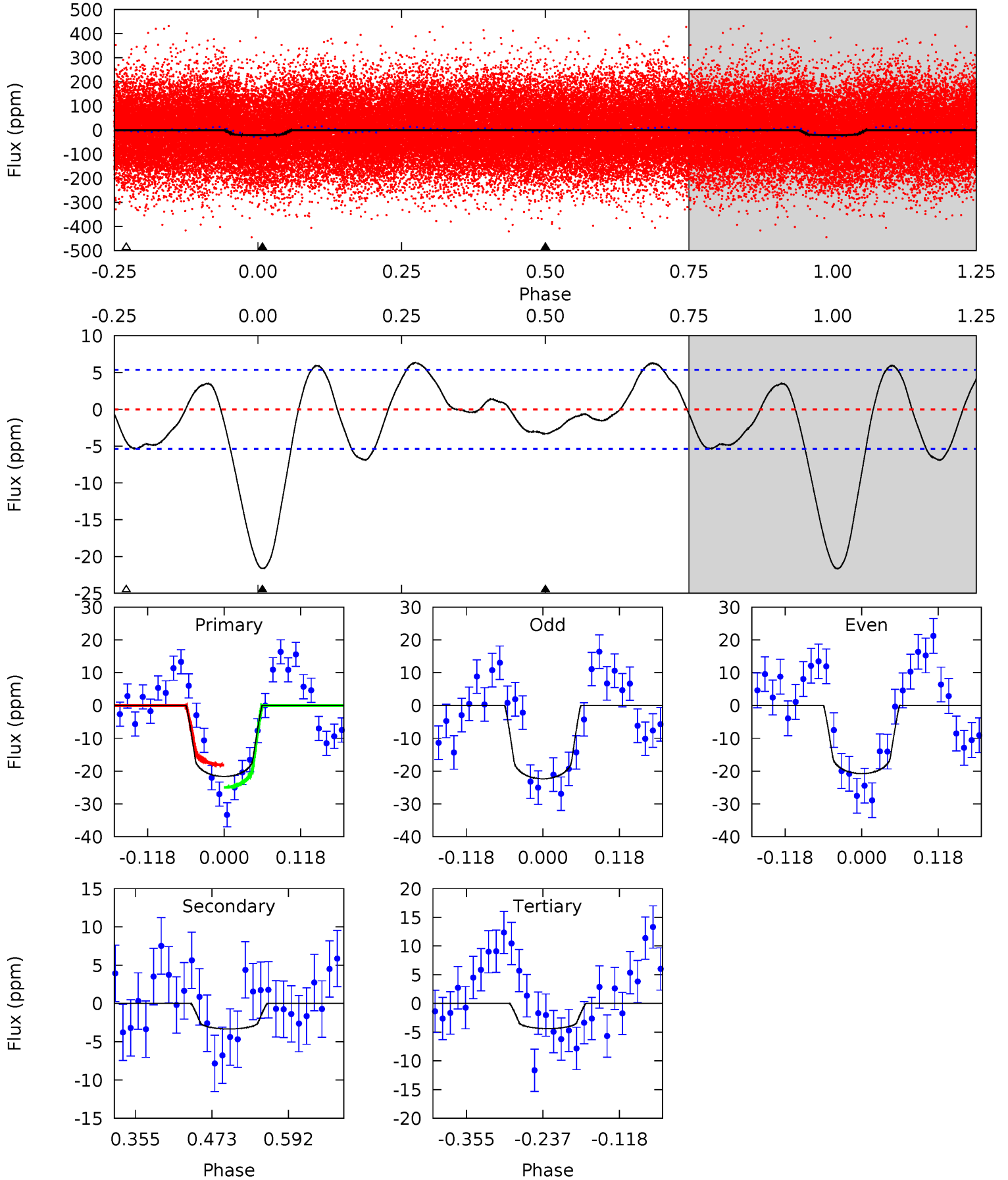
TCE 011506768-01 P= 1.395249 Days $T_0=132.322871$ (BKJD)



DV Model-Shift Uniqueness Test

011506768-01, P = 1.395228 Days, E = 130.952472 Days

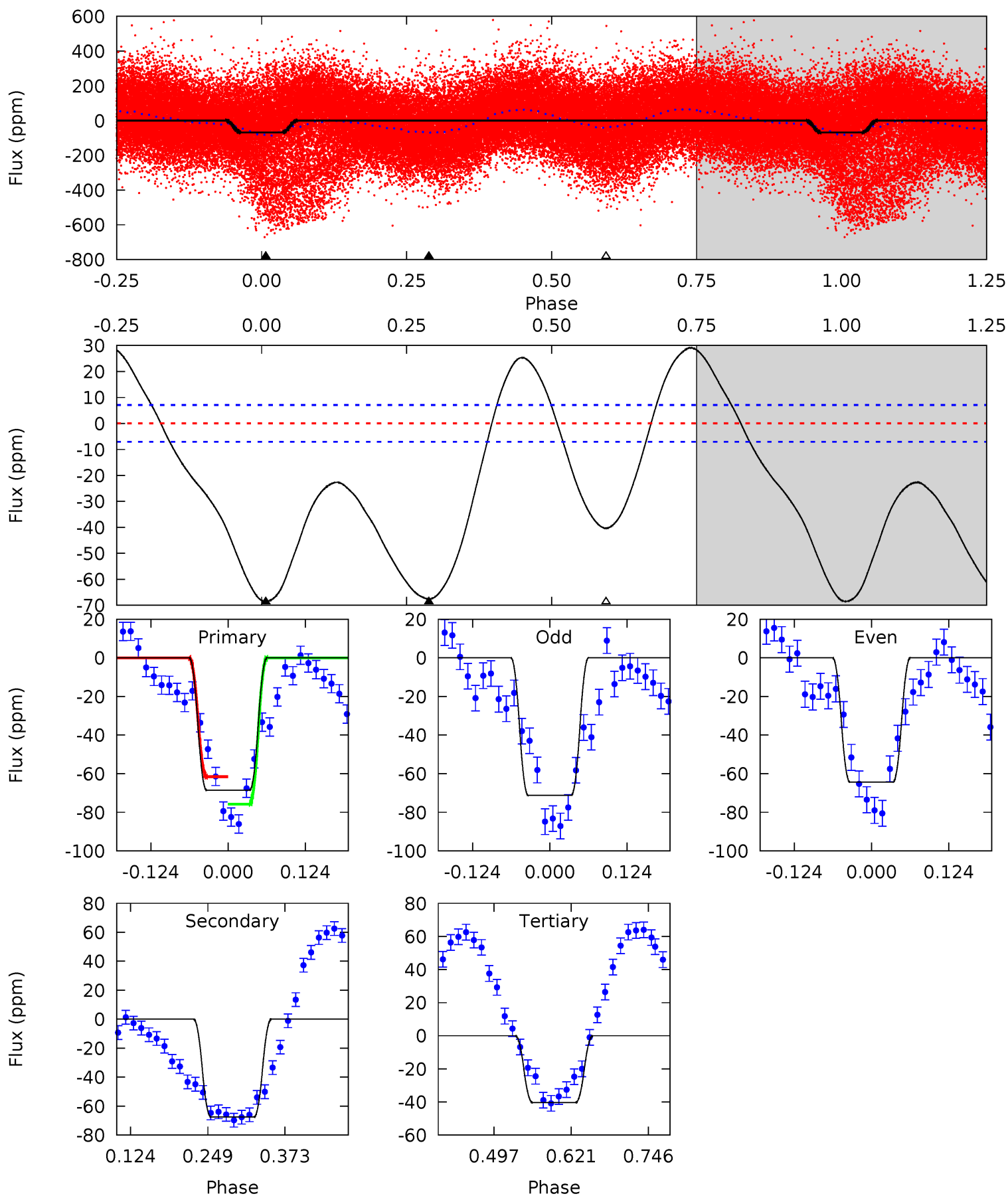
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	2.80	3.69	0	4.53	1.56	3.35	14.6	18.2	-0.89	2.80	0.66	0.98	0.23	2.88



Alt Model-Shift Uniqueness Test

011506768-01, P = 1.395249 Days, E = 130.927622 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.9	43.2	25.8	0	4.52	1.54	14.4	18.0	43.9	17.4	43.2	2.18	1.81	0.30	4.58



Stellar Parameters For KIC 011506768

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6845^{+184}_{-204}	$3.720^{+0.304}_{-0.076}$	$-0.080^{+0.250}_{-0.300}$	$2.974^{+0.452}_{-1.054}$	$1.694^{+0.180}_{-0.309}$	$0.091^{+0.182}_{-0.028}$
	+3%/-3%	+8%/-2%	+312%/-375%	+15%/-35%	+11%/-18%	+200%/-31%
Source	PHO1	FLK73	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 011506768-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 1	$1.35^{+0.31}_{-0.35}$	4140^{+250}_{-405}	4161^{+645}_{-730}	$0.847^{+0.775}_{-0.378}$
Alt.	-68 ± 2	$2.61^{+0.48}_{-0.47}$	4160^{+241}_{-394}	6544^{+461}_{-397}	$4.633^{+2.086}_{-1.308}$

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

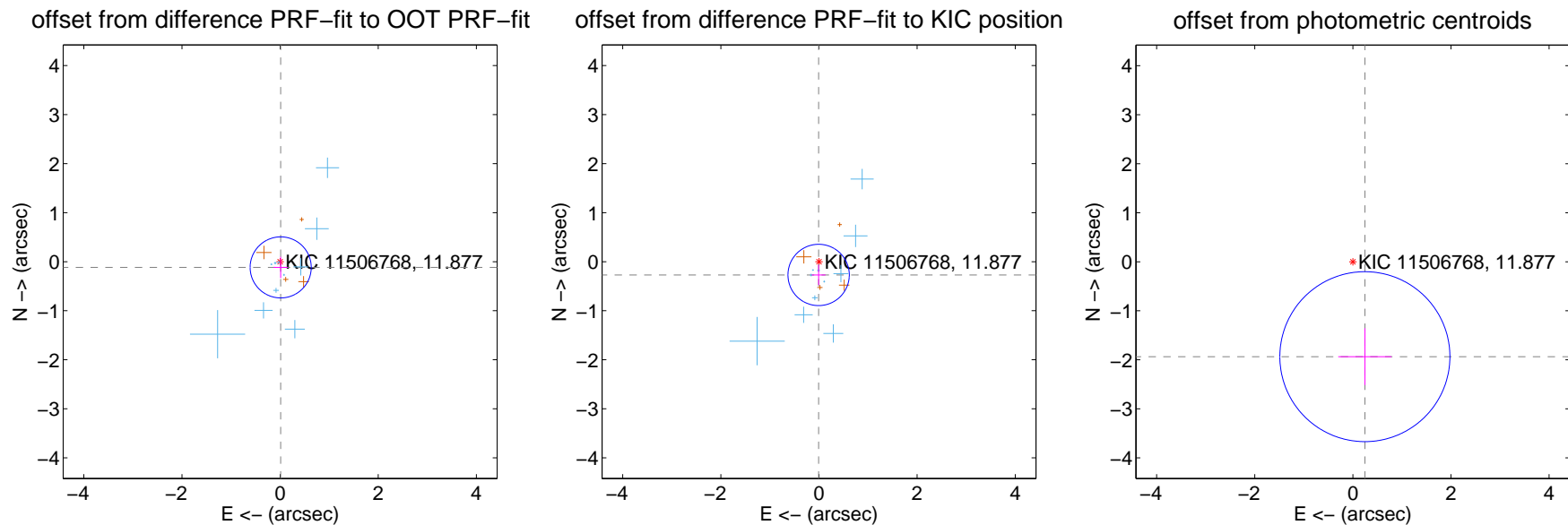
DV Centroid Data

Supplemental centroid analysis for 011506768-01. **Kepler magnitude: 11.88.** Transit SNR 8.21

There are 11 quarters with good PRF difference image offsets

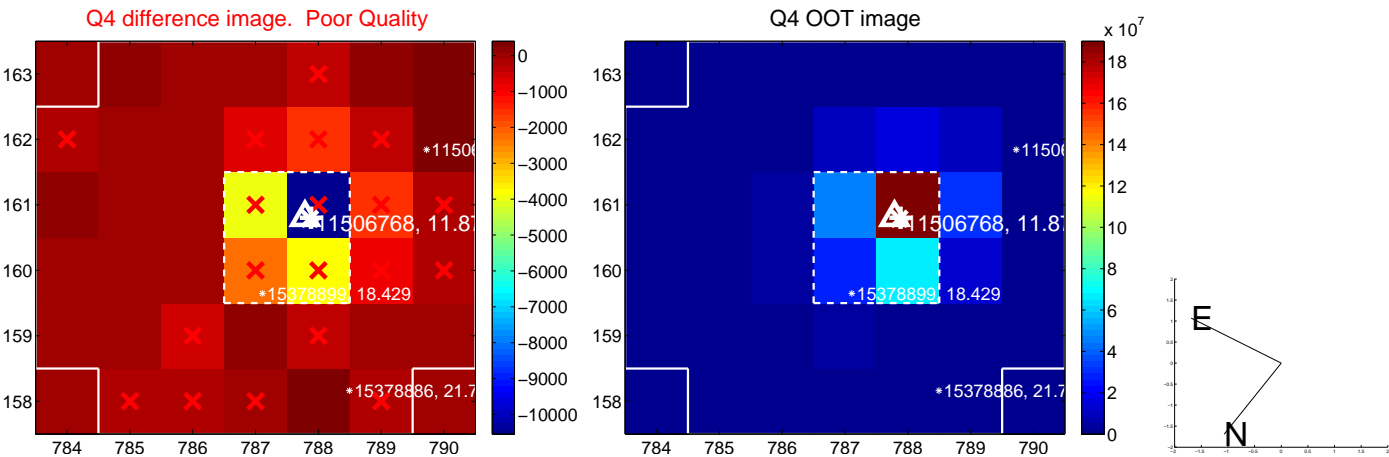
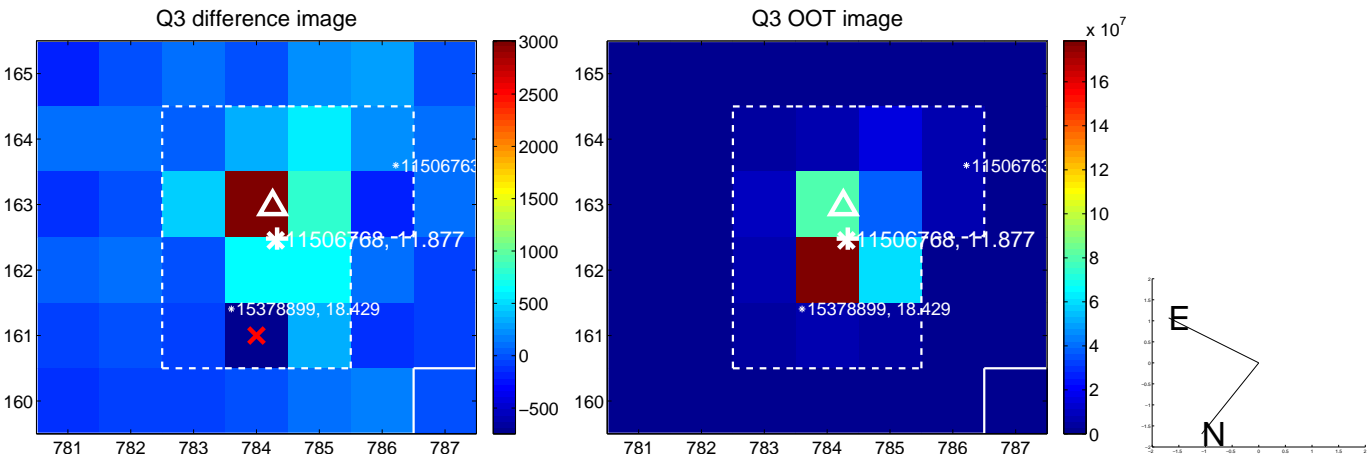
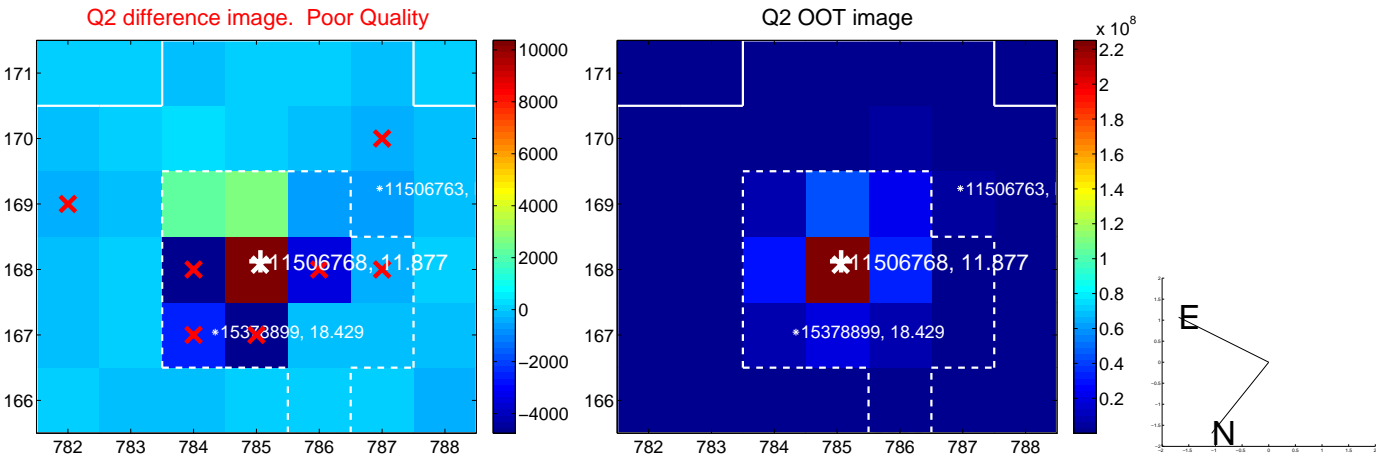
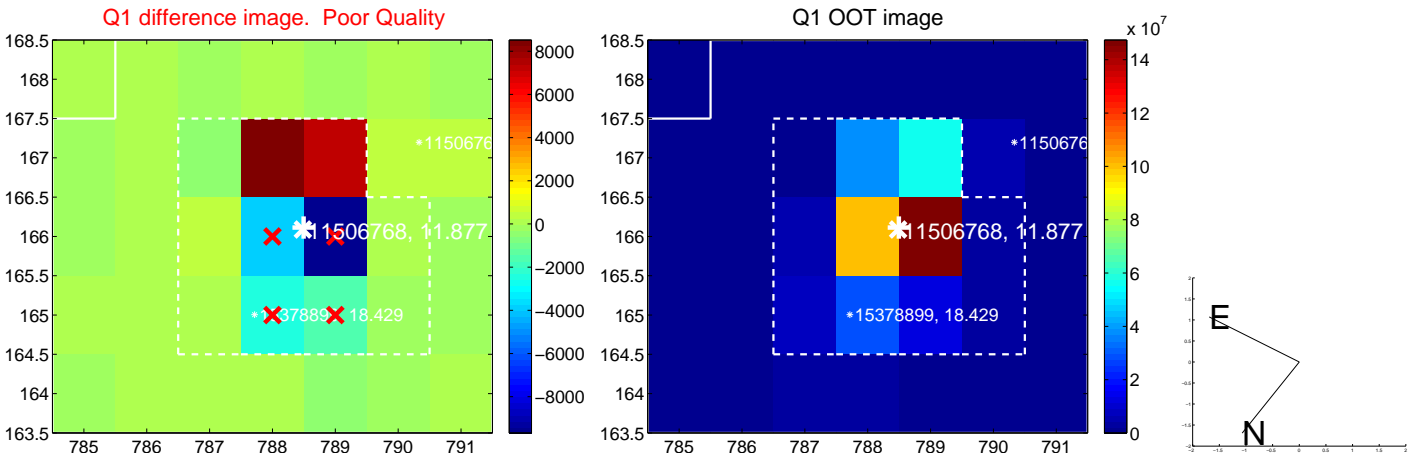
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.117 ± 0.207	0.56	-0.012 ± 0.146	-0.116 ± 0.217
PRF-fit source offset from KIC position	0.270 ± 0.208	1.30	0.007 ± 0.141	-0.270 ± 0.206
photometric centroid source offset	1.95 ± 0.58	3.38	-0.24 ± 0.54	-1.94 ± 0.58

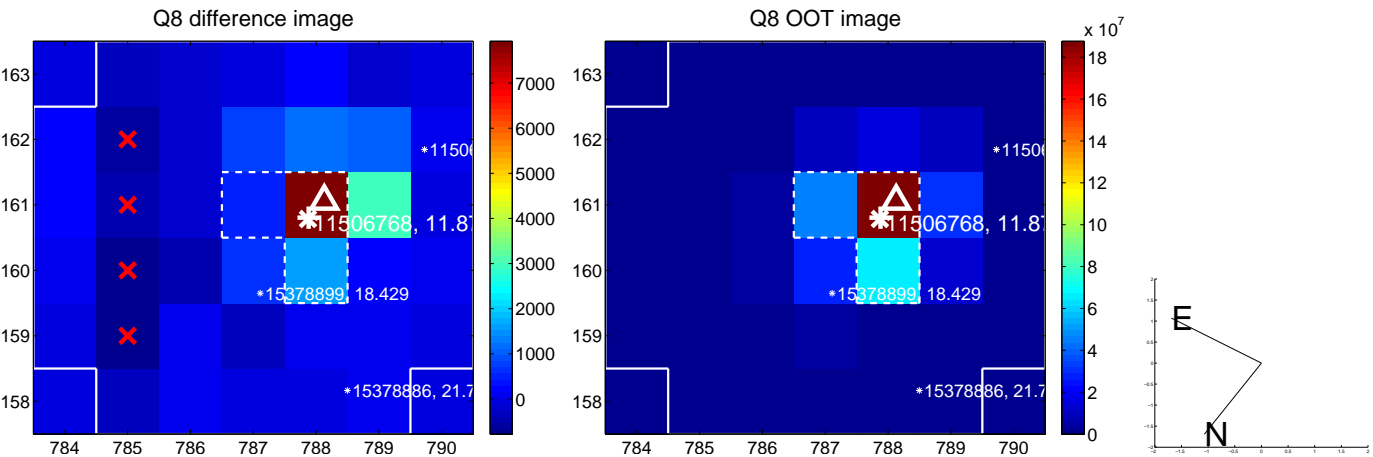
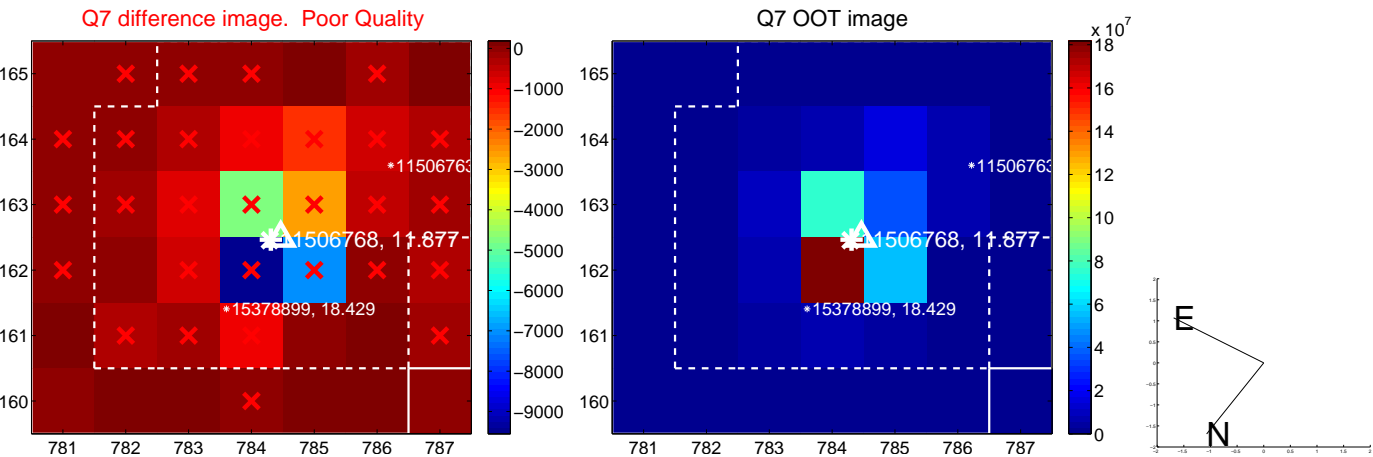
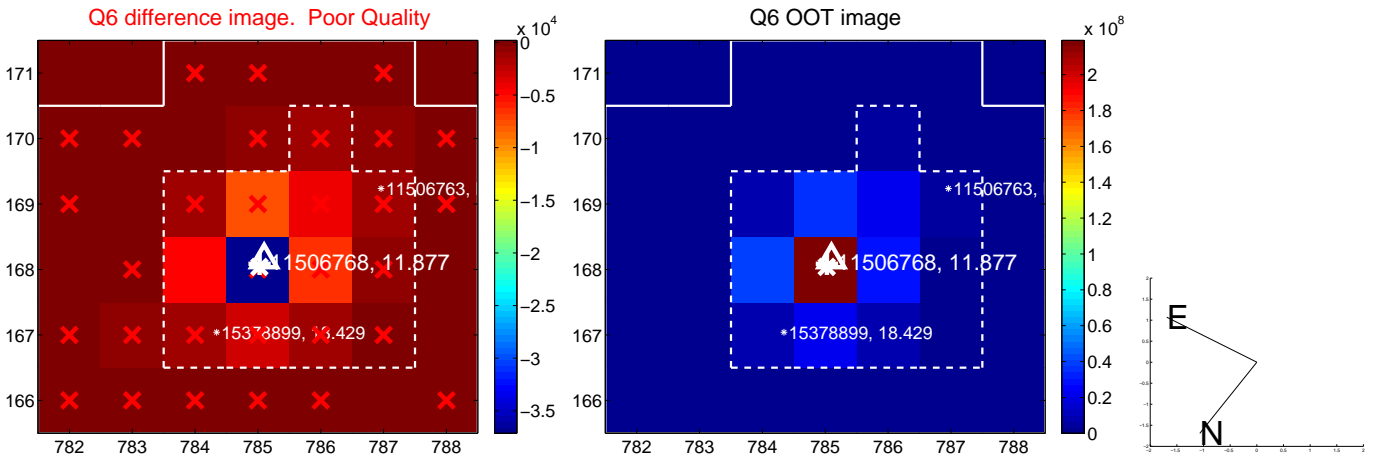
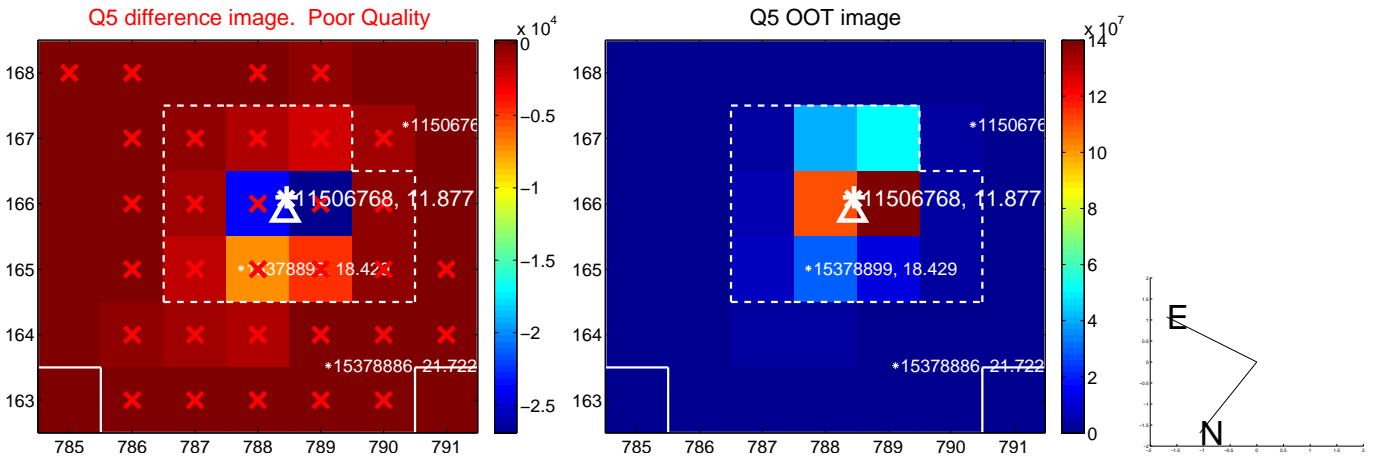


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

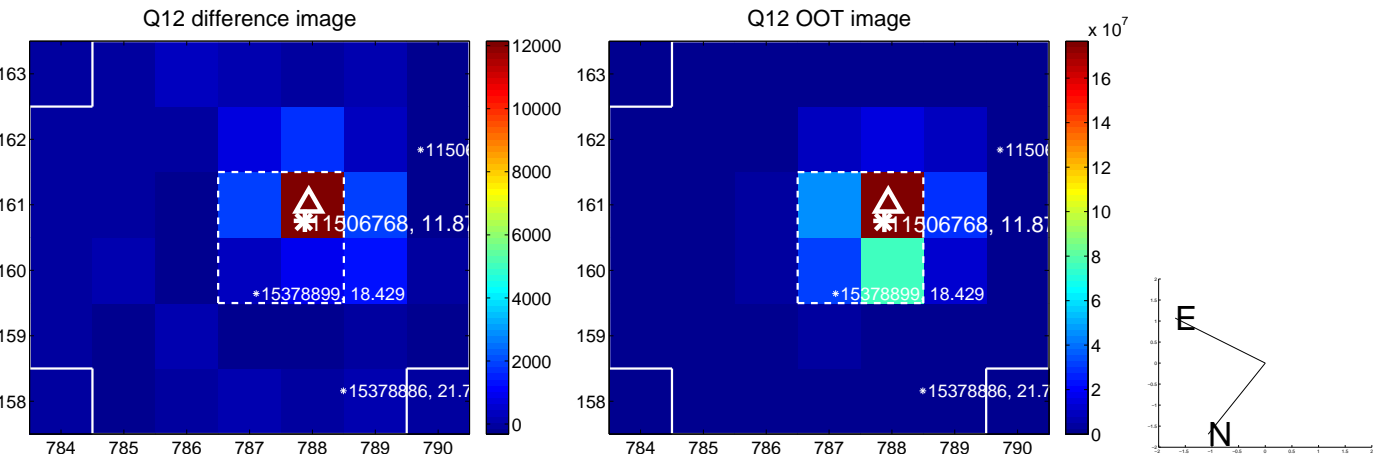
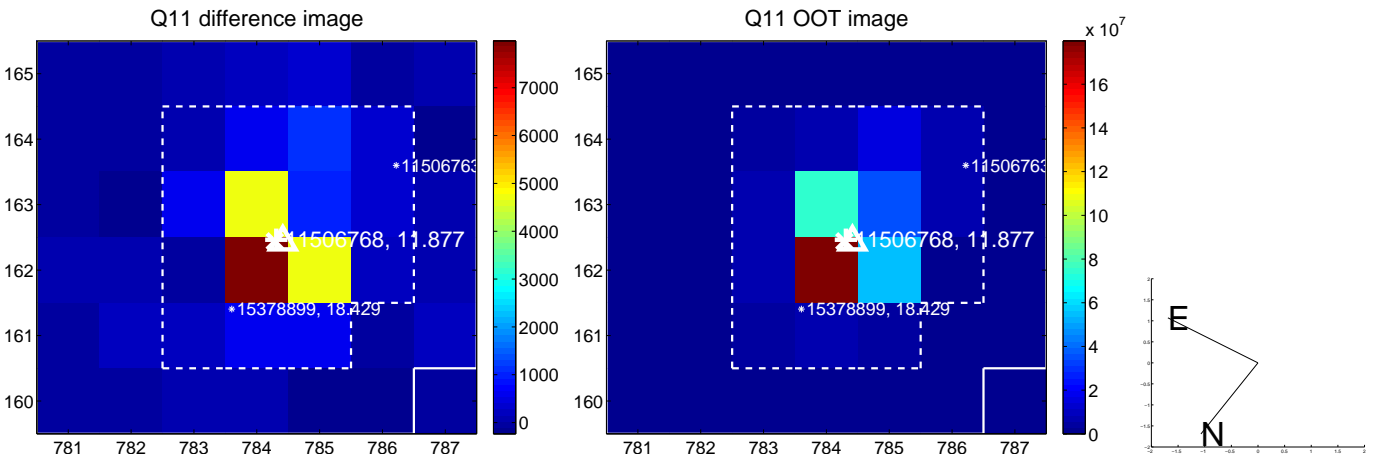
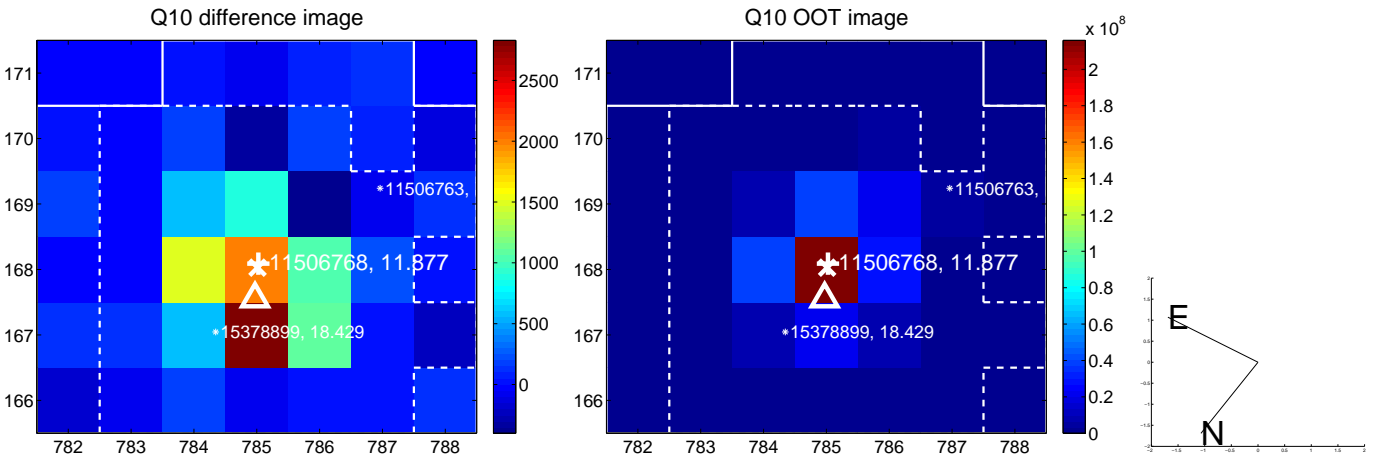
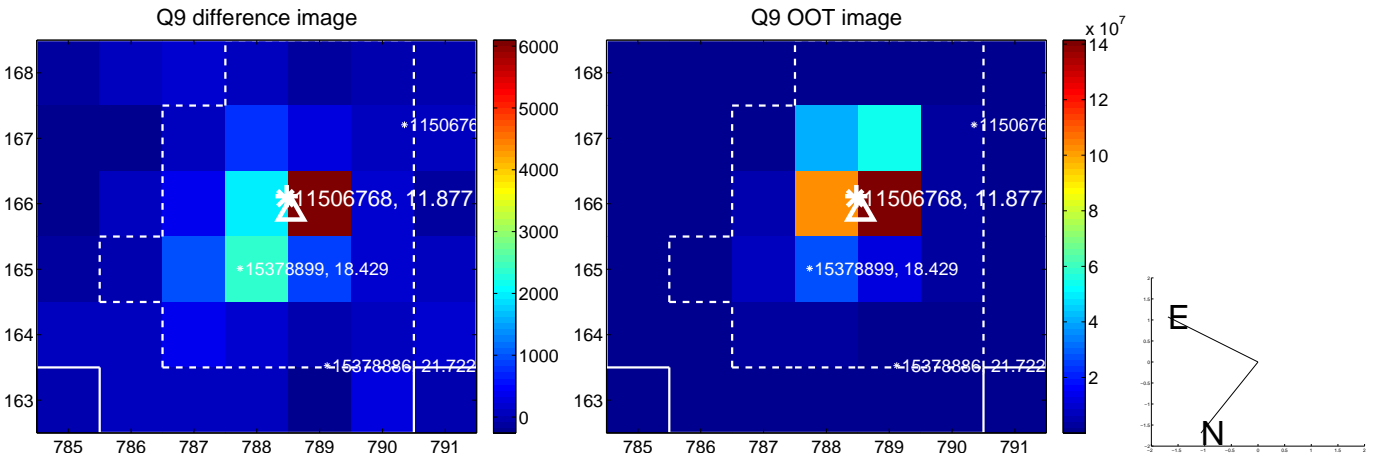
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



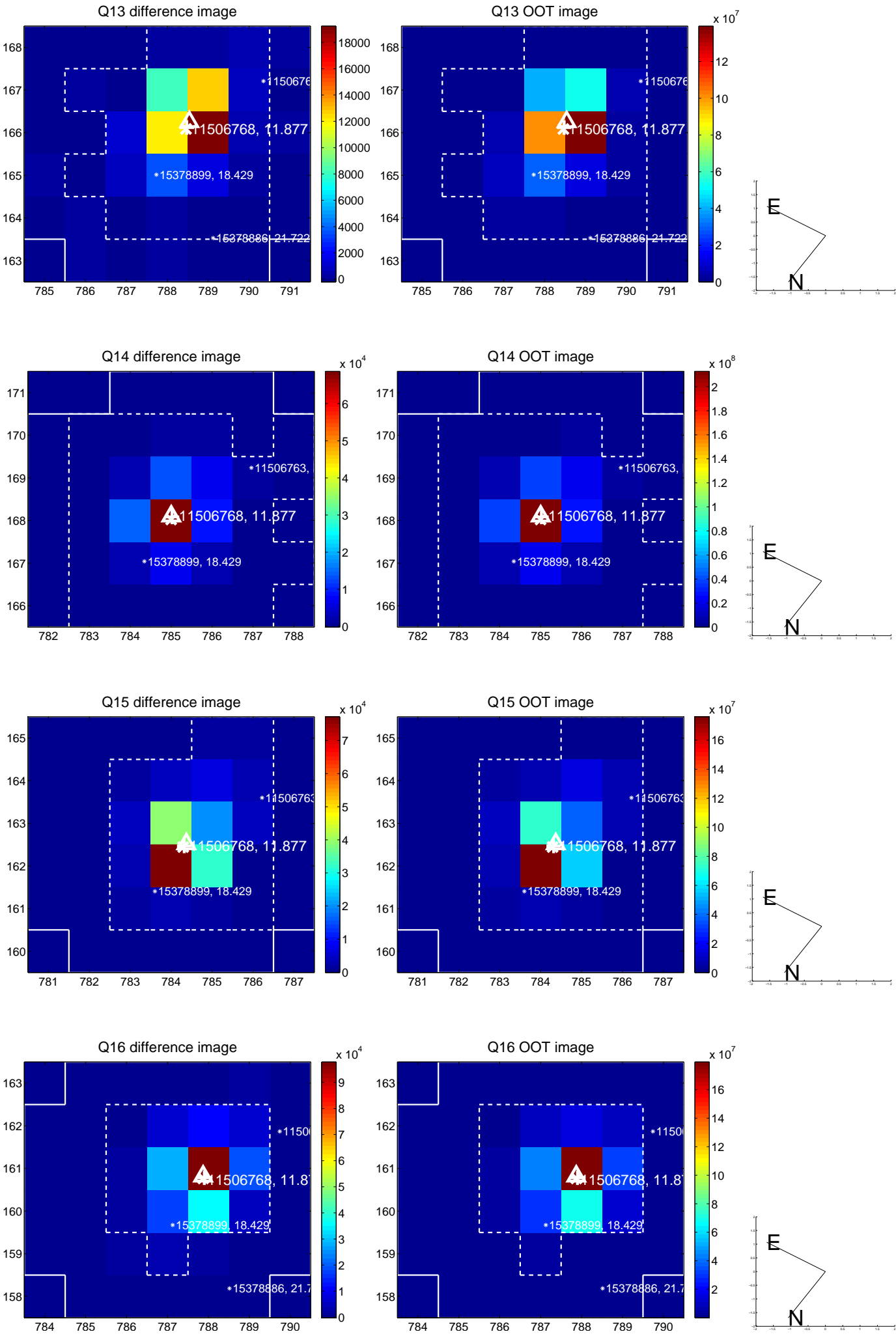
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



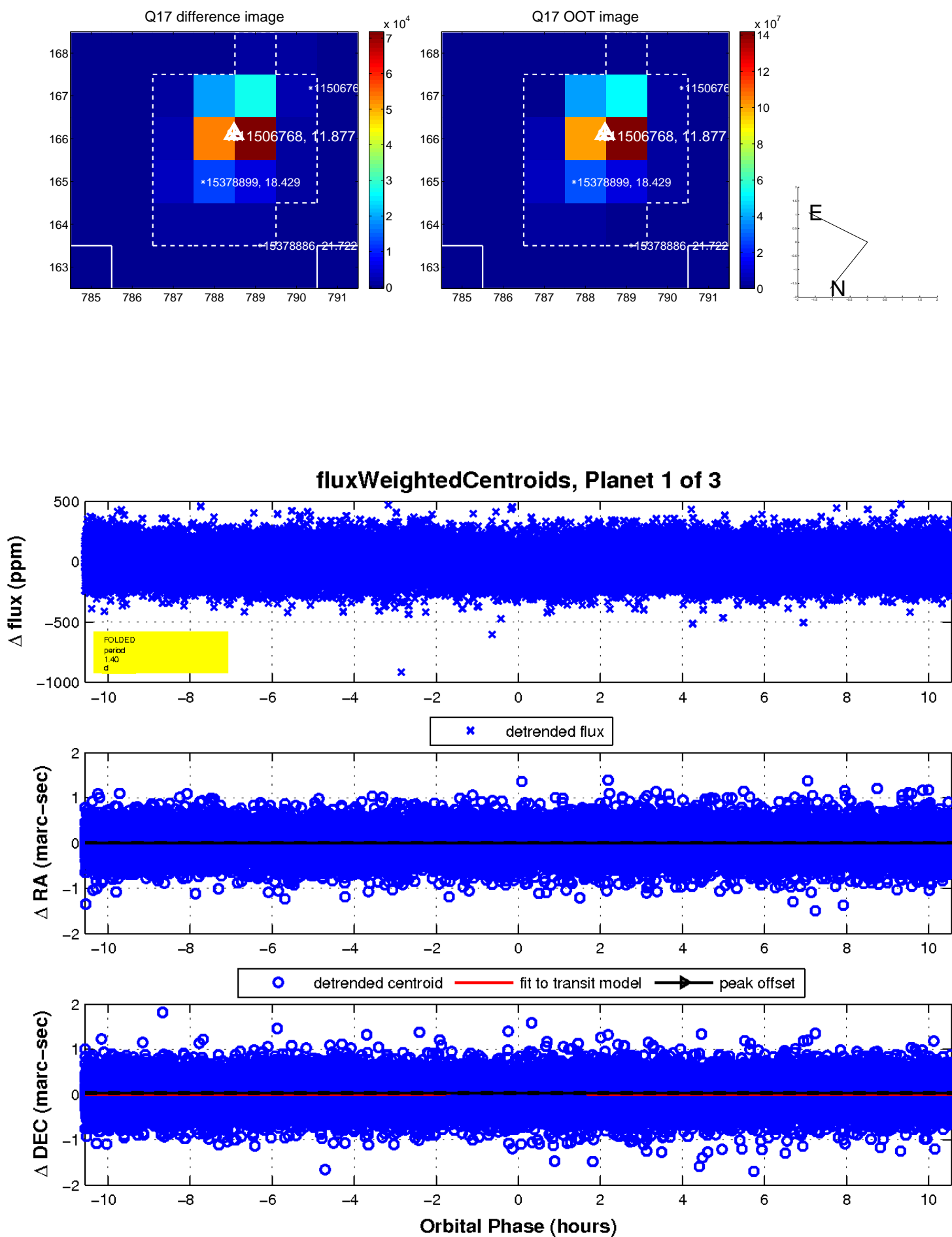
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

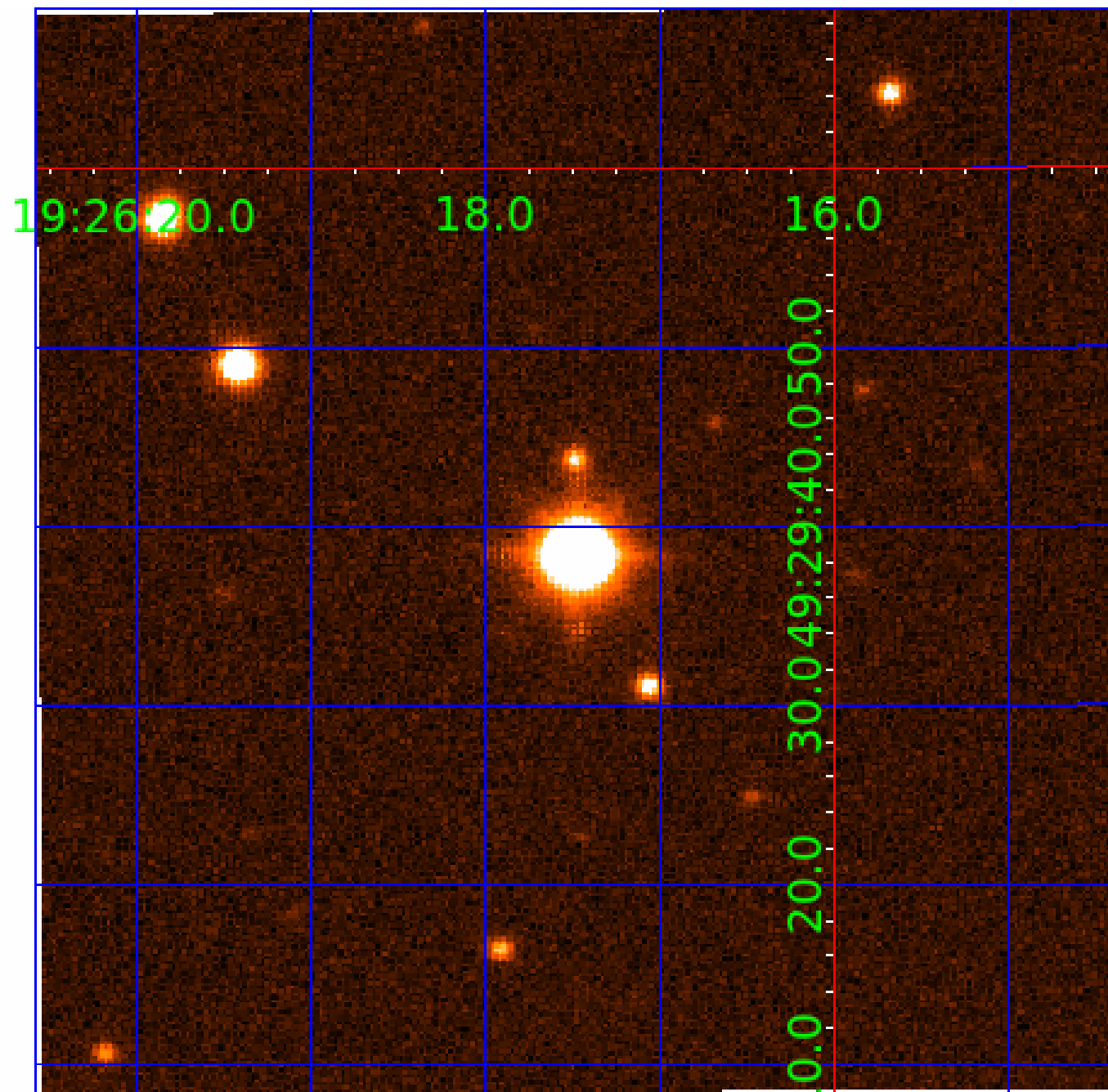


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011506768

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})
011506768-01	OBS	No	1.395228	132.347700	17.8	3.520	11.2	8.2	2.97	6845	1.46	20500.07
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011506768-03	OBS	No	229.968928	244.357894	145.9	8.206	7.3	5.2	2.97	6845	3.96	22.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011506768-01	OBS	FP	0.00	1	0	0	0	LPP_ALT—MOD_NONUNIQ_ALT
011506768-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011506768-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

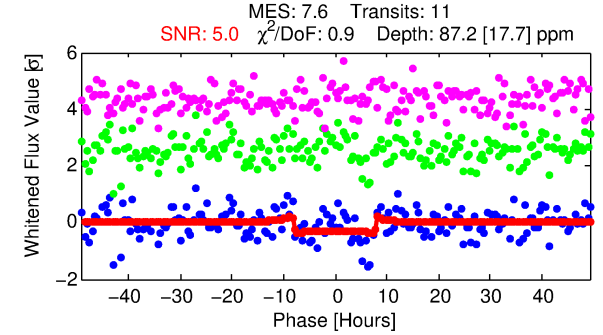
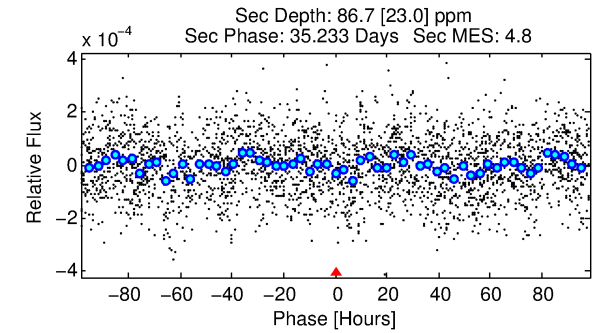
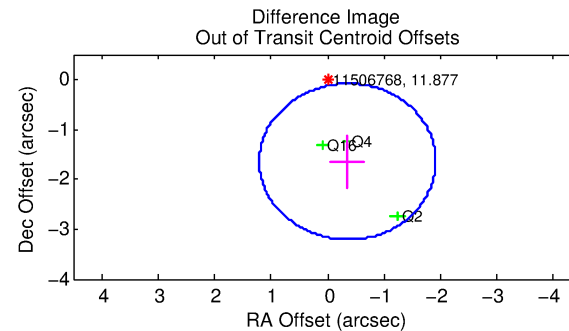
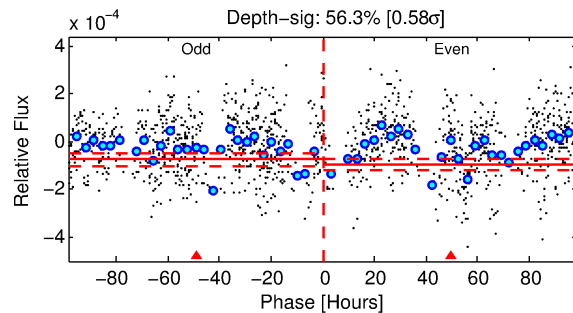
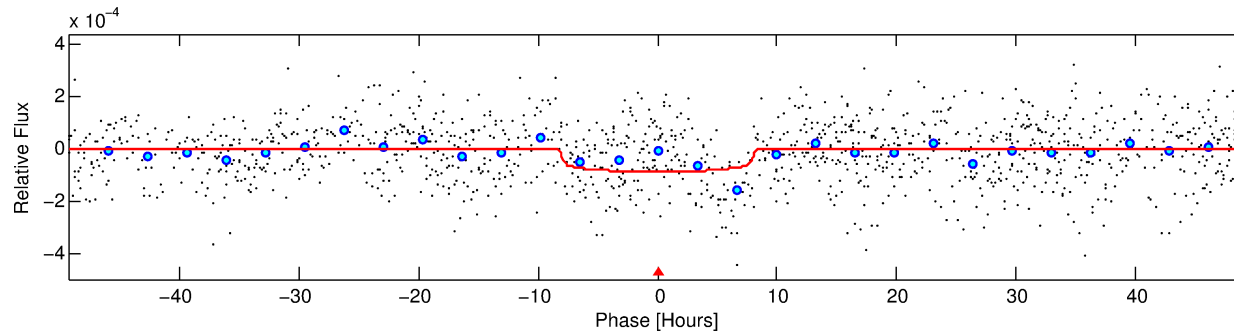
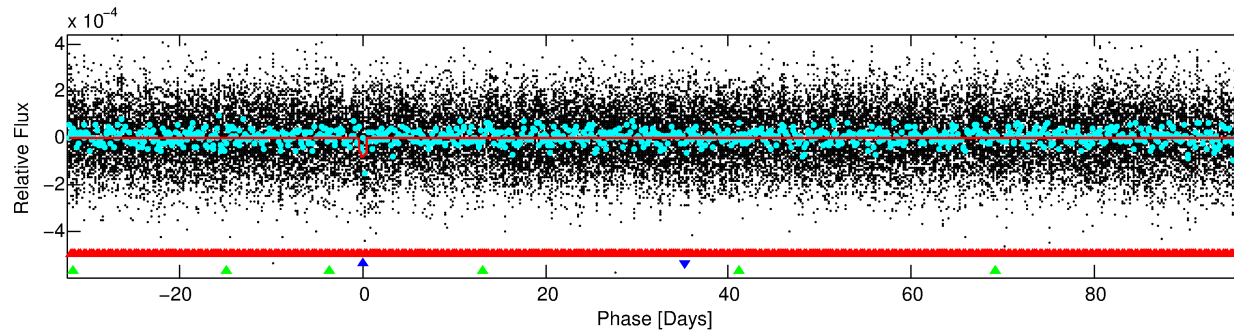
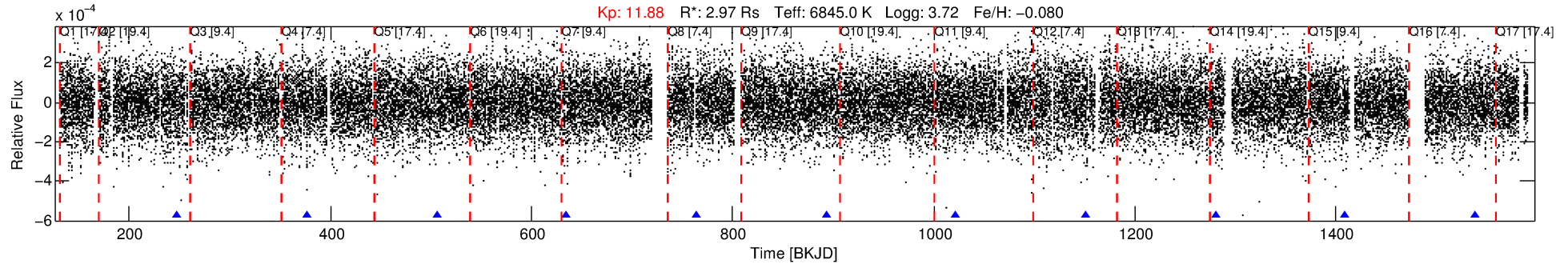
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011506768-02

No Significant Match Found

DV One-Page Summary

KIC: 11506768 Candidate: 2 of 3 Period: 129.025 d



DV Fit Results:

Period = 129.02504 [0.00410] d
Epoch = 248.0211 [0.0254] BKJD
Rp/R* = 0.0094 [0.0022]
a/R* = 37.77 [44.87]
b = 0.79 [0.57]
Seff = 49.02 [26.30]
Teq = 675 [90] K
Rp = 3.05 [1.30] Re
a = 0.5957 [0.1978] AU
Ag = 1816.93 [1366.92] [1.33 σ]
Teffp = 6811 [943] K [6.48 σ]

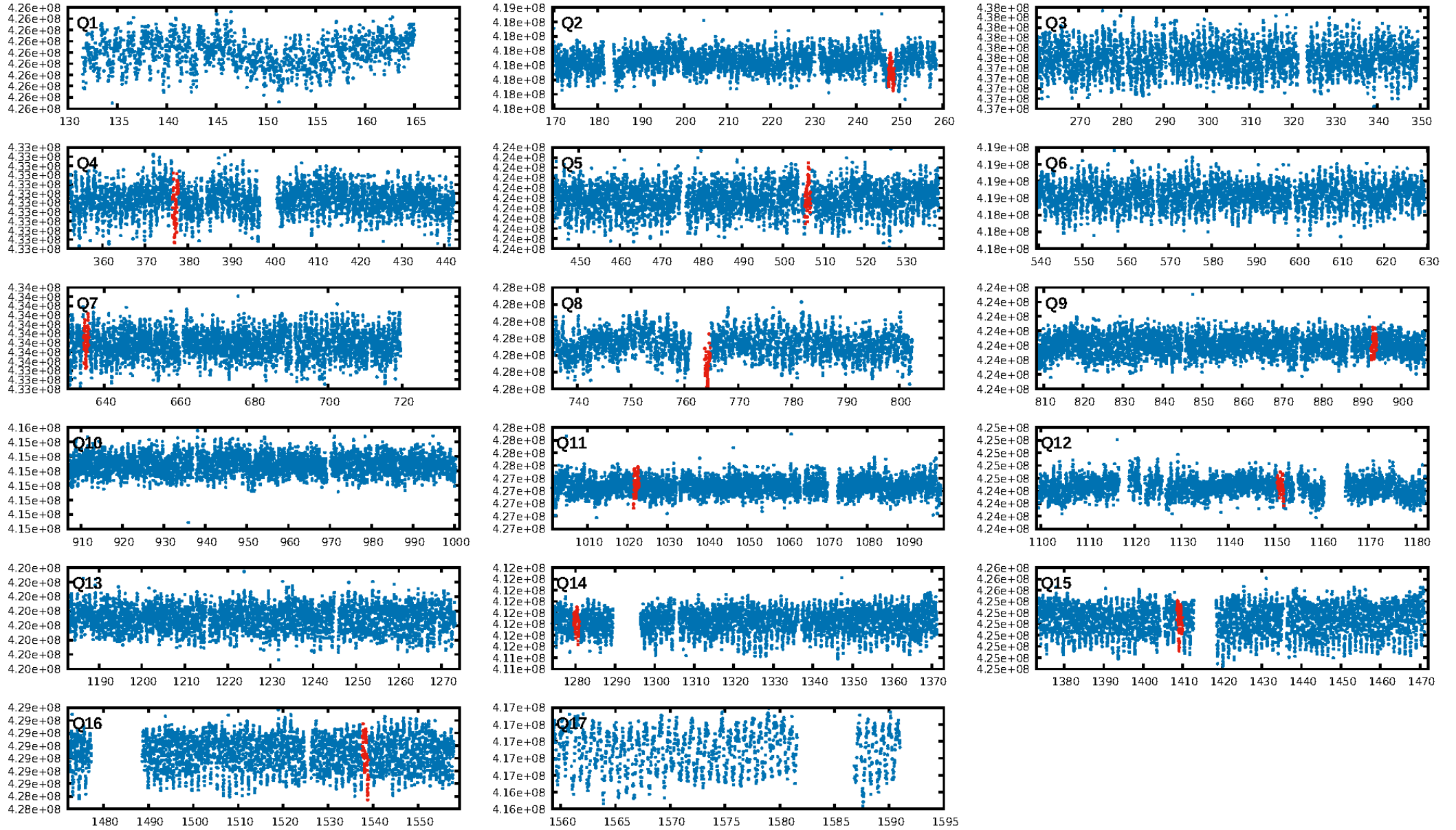
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [182.09 σ]
LongPeriod-sig: 100.0% [131.78 σ]
ModelChiSquare2-sig: 85.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.66e-11
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 1.534
Centroid-sig: 30.0%
Centroid-so: 0.802 arcsec [1.25 σ]
OotOffset-rm: 1.687 arcsec [3.24 σ]
KicOffset-rm: 1.813 arcsec [2.80 σ]
OotOffset-st: 1/0/2/0 [3]
KicOffset-st: 1/0/2/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/5]

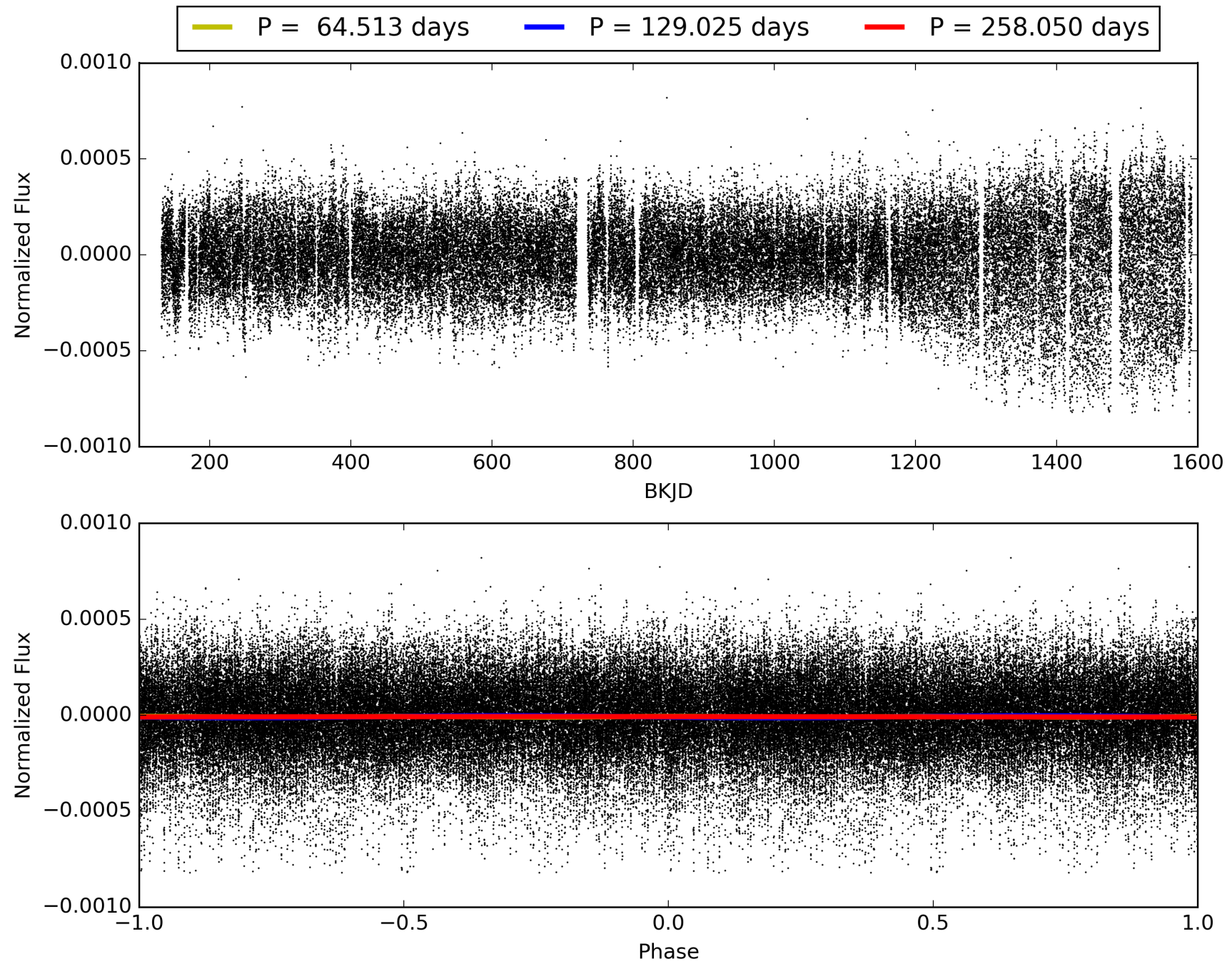
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:56:48 Z

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

TCE 011506768-02, PDC Light Curves

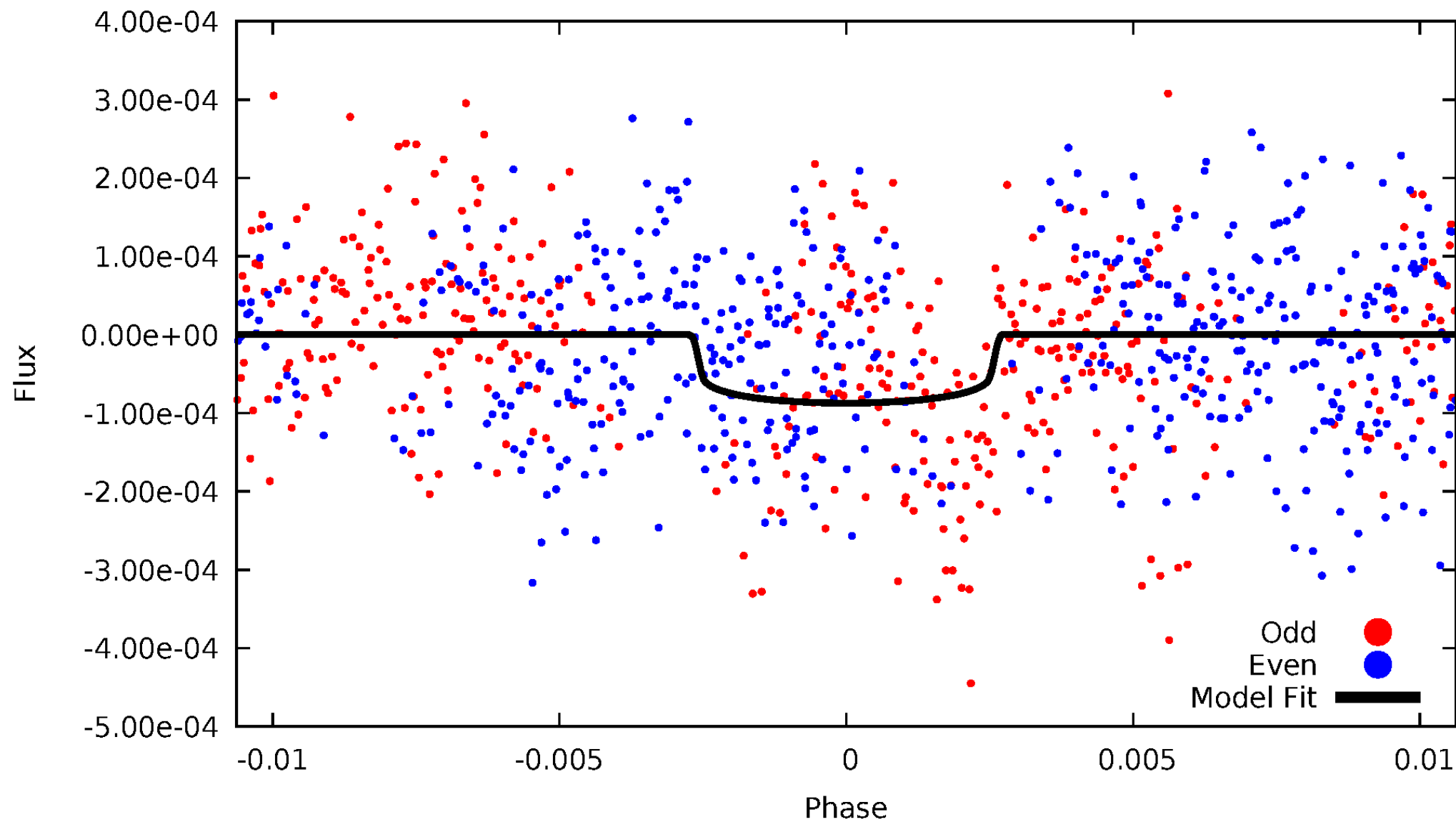


TCE 011506768-02



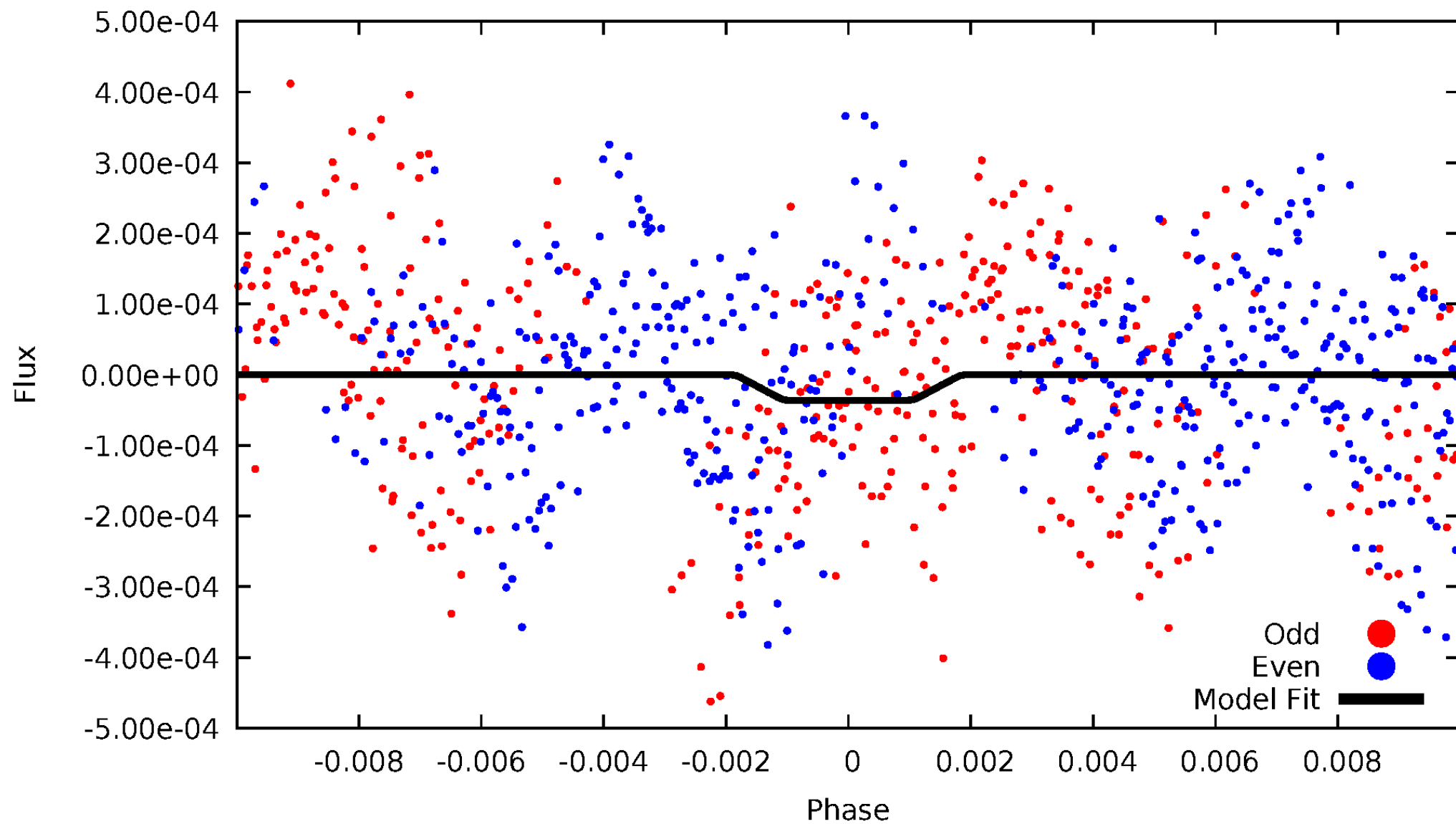
DV Odd/Even

TCE 011506768-02



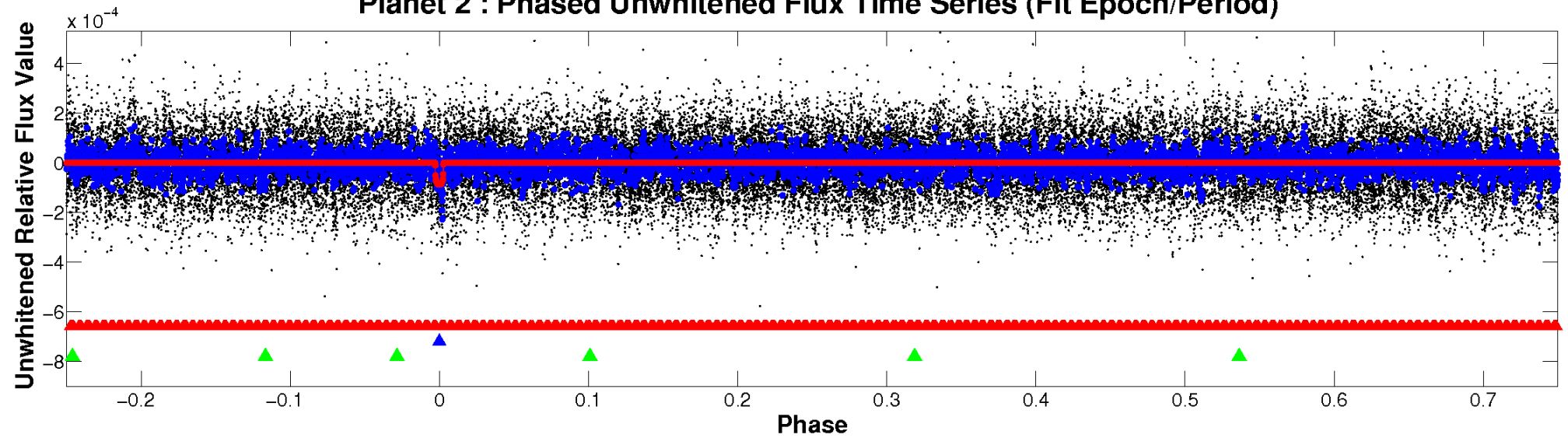
ALT Odd/Even

TCE 011506768-02

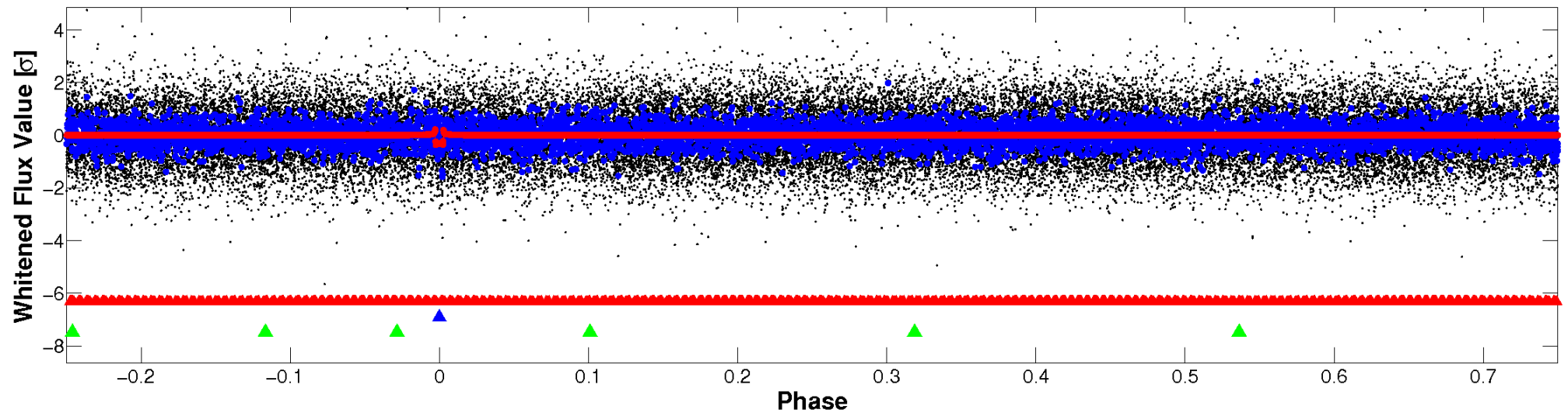


Non-Whitened Vs. Whitened Light Curve

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

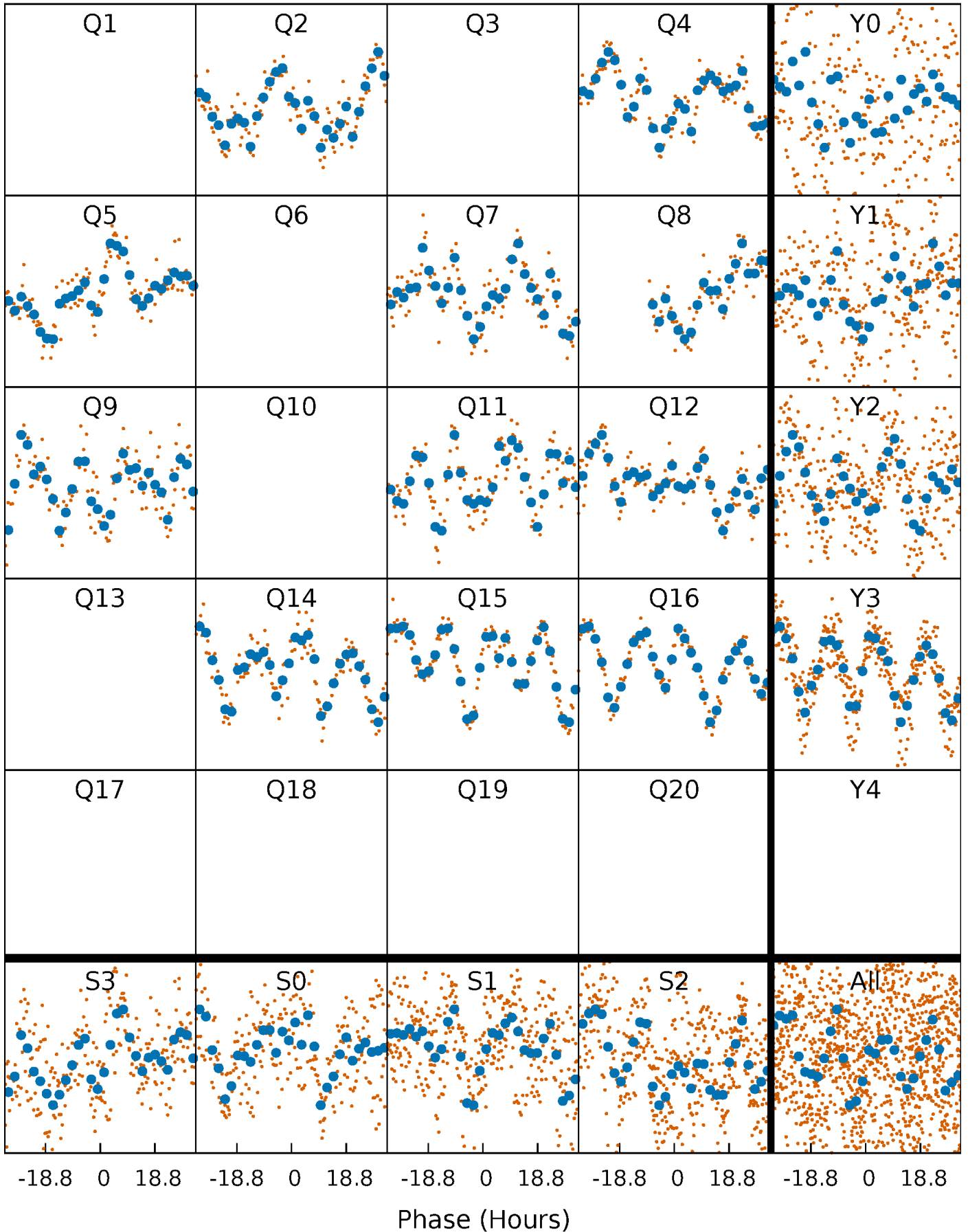


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



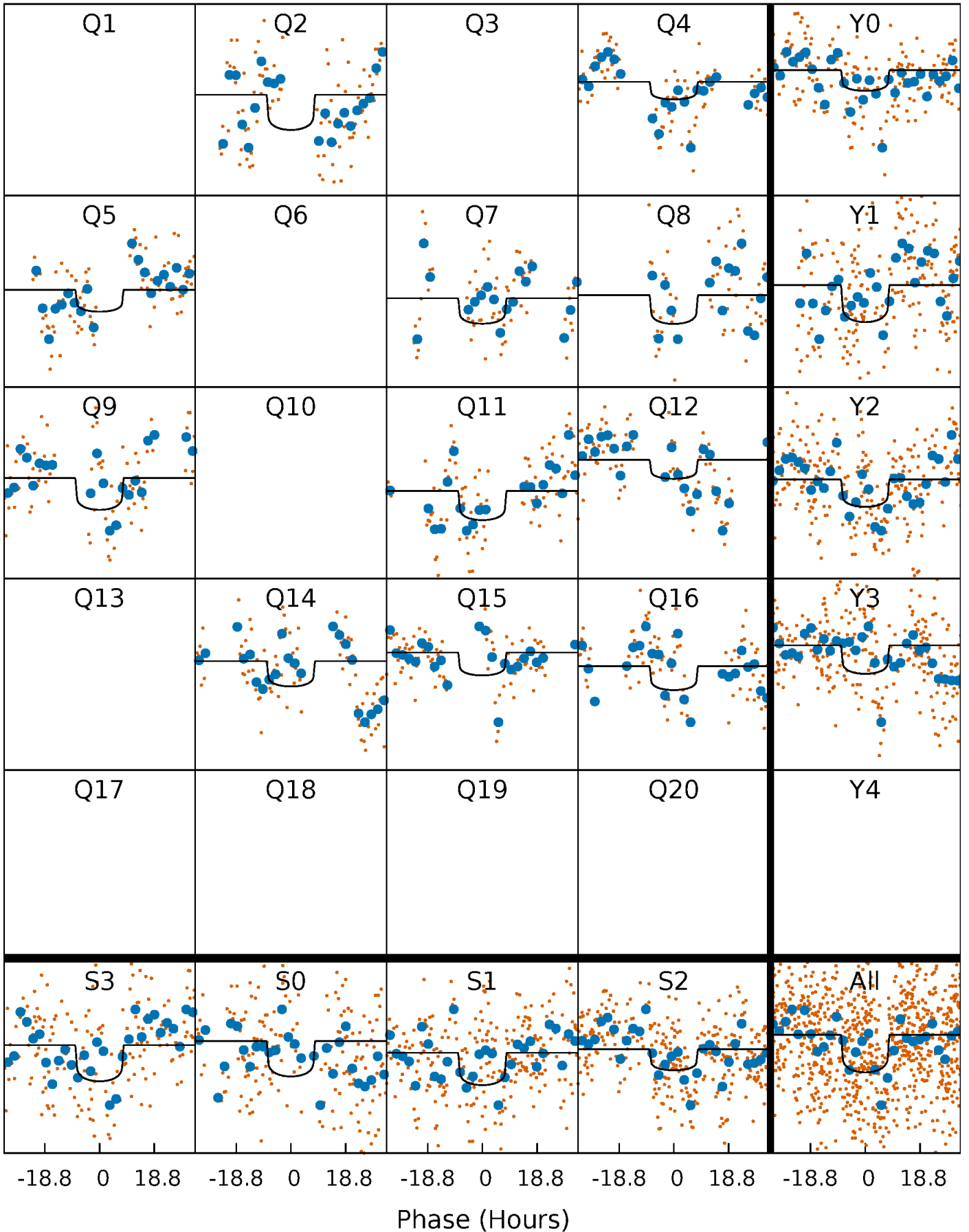
PDC Quarter-Phased Transit Curves

TCE 011506768-02 P=129.025038 Days $T_0=248.021073$ (BKJD)



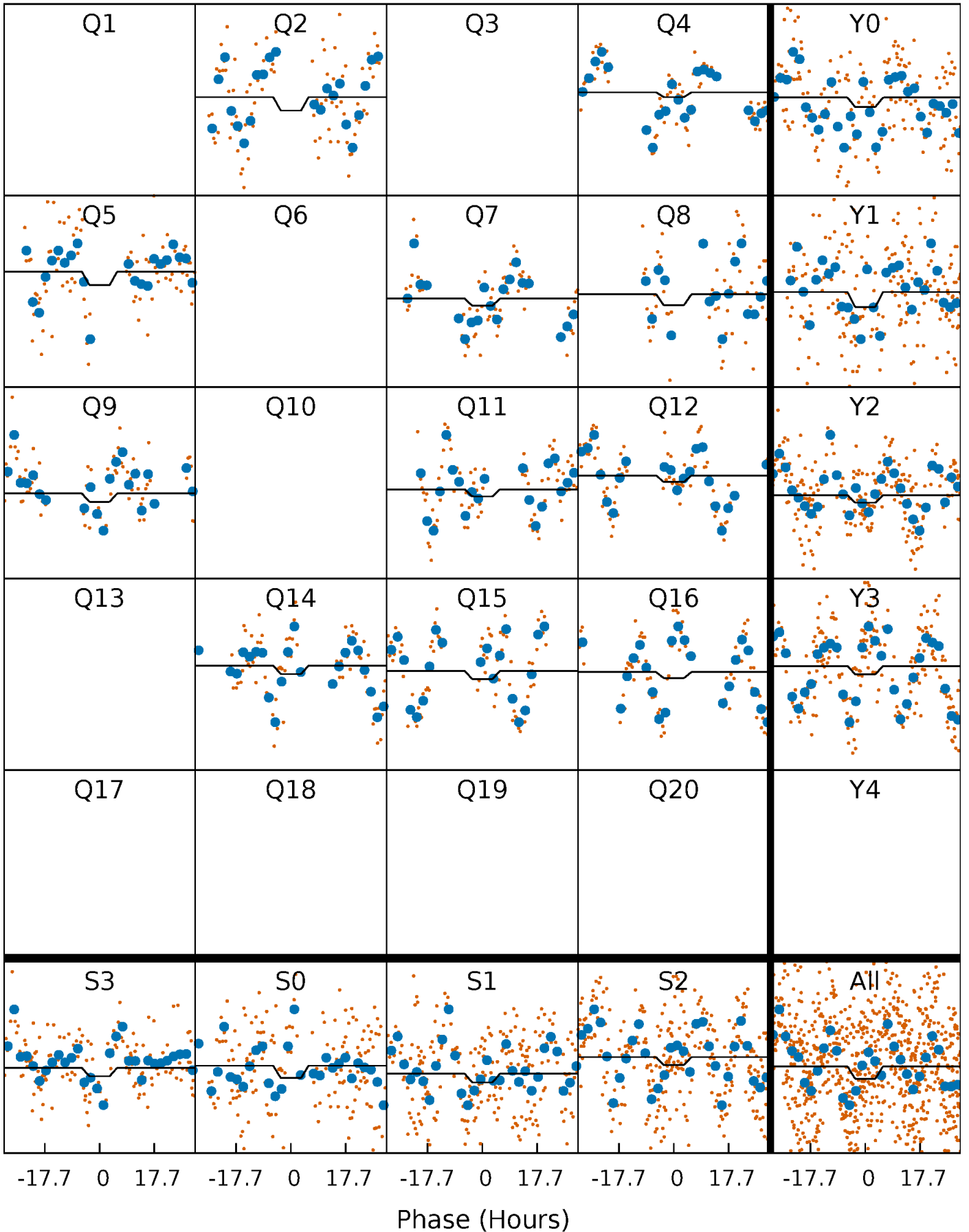
DV Quarter-Phased Transit Curves

TCE 011506768-02 P=129.025038 Days $T_0=248.021073$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

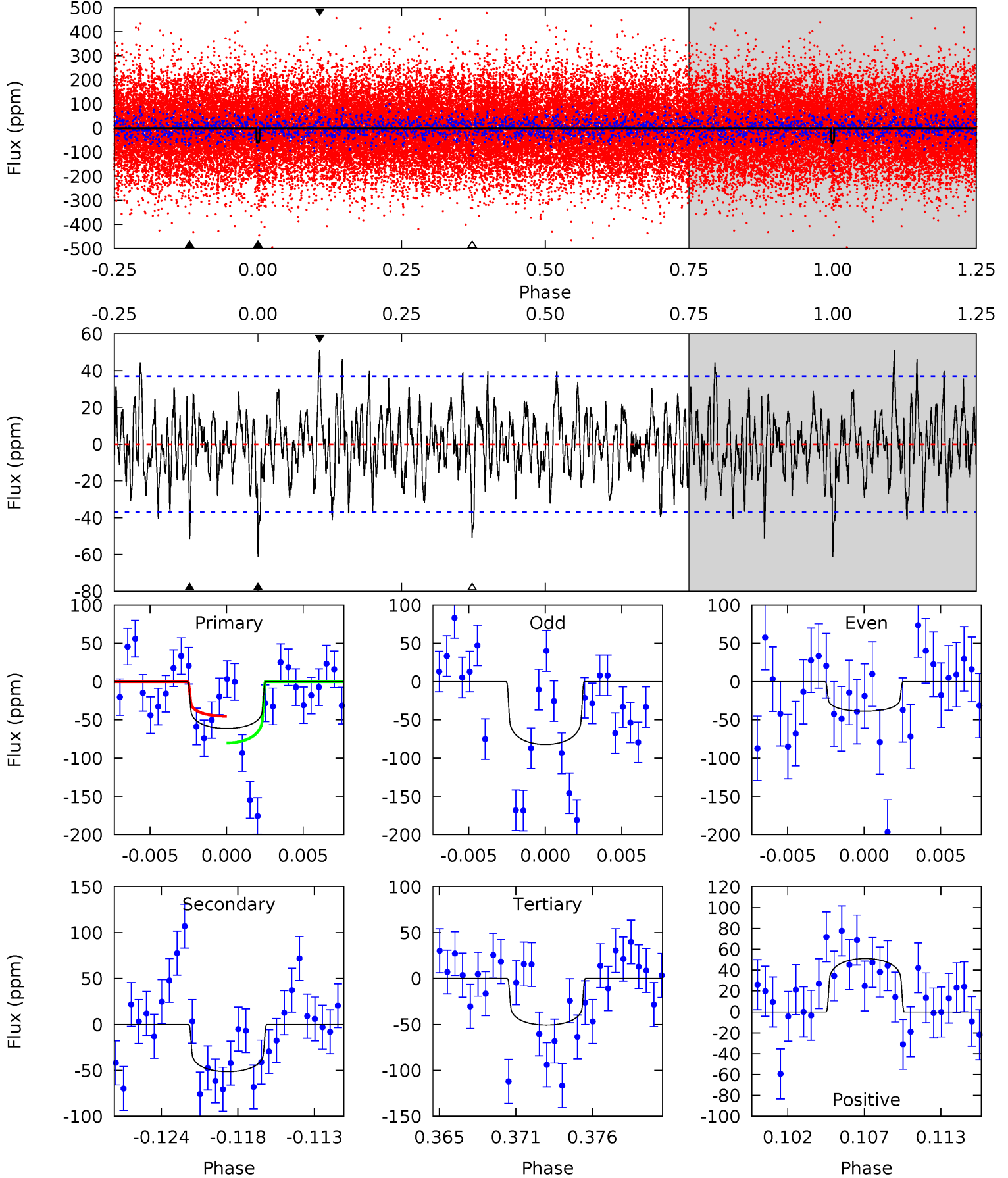
TCE 011506768-02 P=129.020227 Days $T_0=248.105901$ (BKJD)



DV Model-Shift Uniqueness Test

011506768-02, P = 129.025038 Days, E = 118.996035 Days

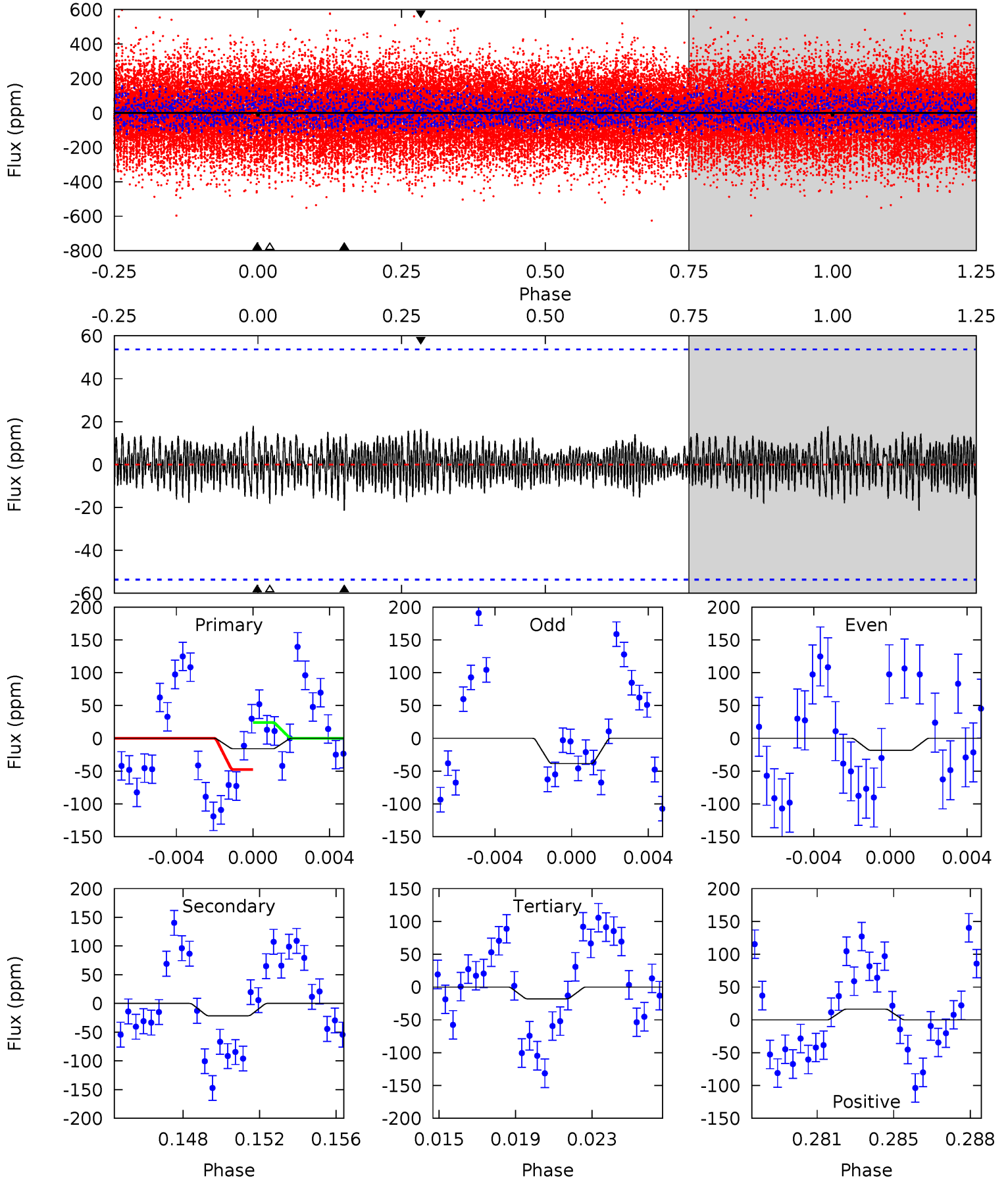
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.52	7.16	7.06	7.11	5.14	2.78	2.11	1.47	1.41	0.10	0.05	3.03	1.05	0.45	2.43



Alt Model-Shift Uniqueness Test

011506768-02, P = 129.020227 Days, E = 119.085674 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.55	2.08	1.74	1.58	5.21	2.89	0.66	-0.20	-0.03	0.34	0.50	0.98	-1.09	0.45	1.14



Stellar Parameters For KIC 011506768

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6845^{+184}_{-204}	$3.720^{+0.304}_{-0.076}$	$-0.080^{+0.250}_{-0.300}$	$2.974^{+0.452}_{-1.054}$	$1.694^{+0.180}_{-0.309}$	$0.091^{+0.182}_{-0.028}$
	+3%/-3%	+8%/-2%	+312%/-375%	+15%/-35%	+11%/-18%	+200%/-31%
Source	PHO1	FLK73	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 011506768-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-51 ± 7	$2.82^{+0.83}_{-0.78}$	923^{+53}_{-78}	5953^{+964}_{-573}	1229^{+1093}_{-485}
Alt.	-21 ± 10	$1.80^{+0.77}_{-0.65}$	917^{+57}_{-79}	5854^{+1659}_{-1027}	1161^{+2319}_{-695}

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

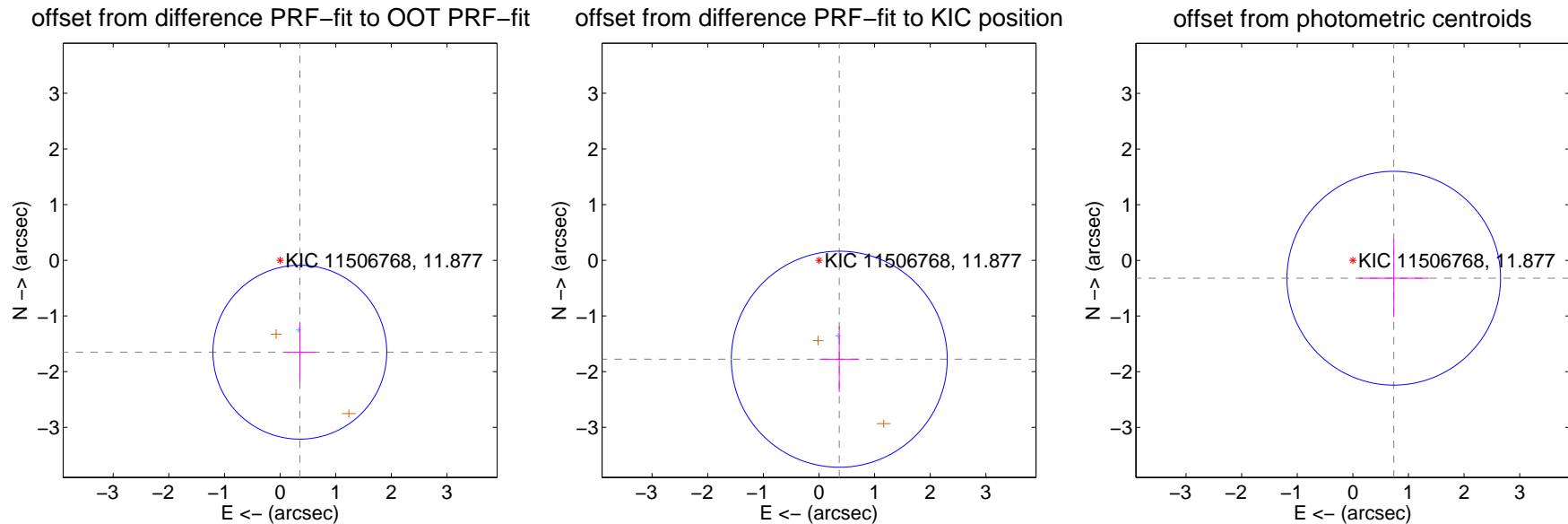
DV Centroid Data

Supplemental centroid analysis for 011506768-02. **Kepler magnitude: 11.88.** Transit SNR 4.97

There are 1 quarters with good PRF difference image offsets

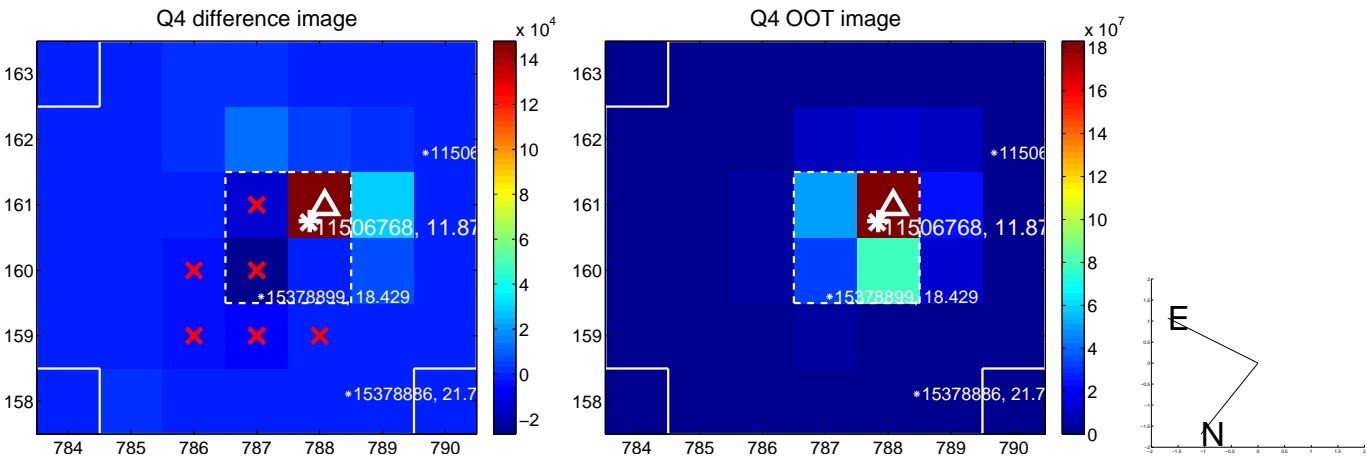
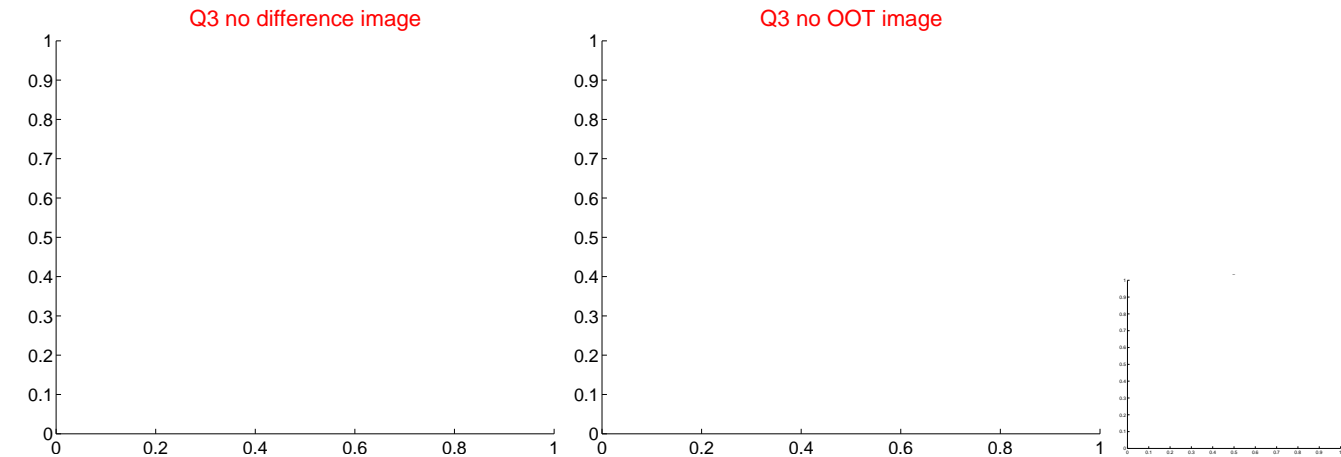
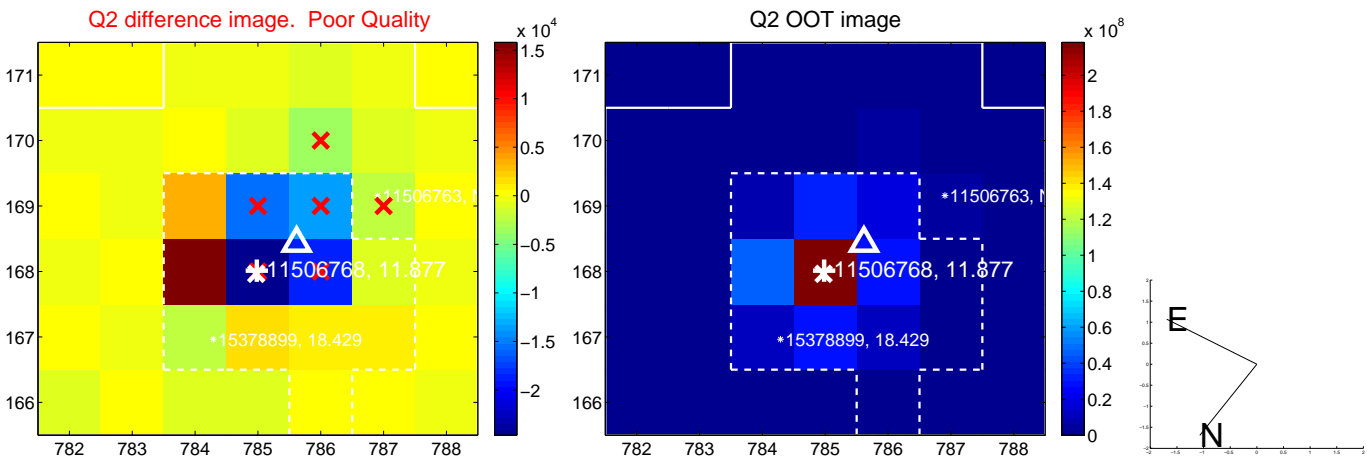
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.687 ± 0.521	3.24	-0.355 ± 0.289	-1.650 ± 0.529
PRF-fit source offset from KIC position	1.813 ± 0.647	2.80	-0.365 ± 0.354	-1.776 ± 0.591
photometric centroid source offset	0.80 ± 0.64	1.25	-0.74 ± 0.63	-0.32 ± 0.70



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.

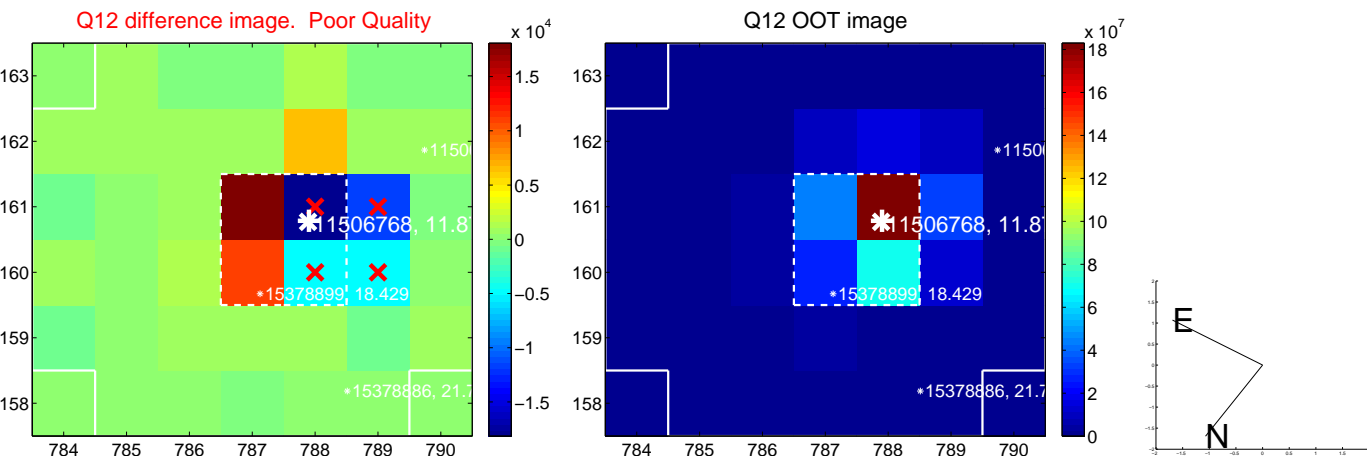
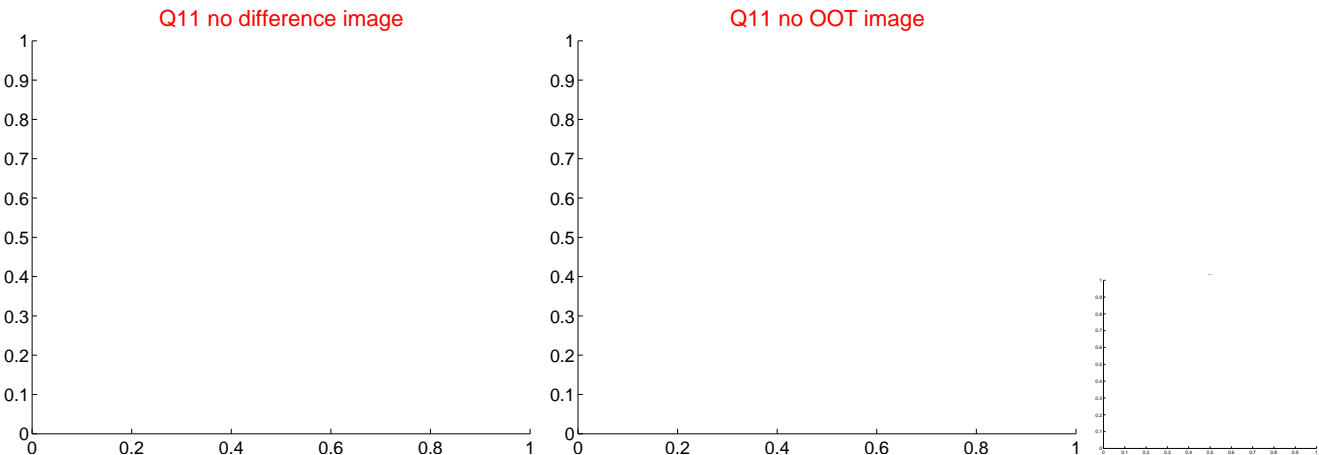
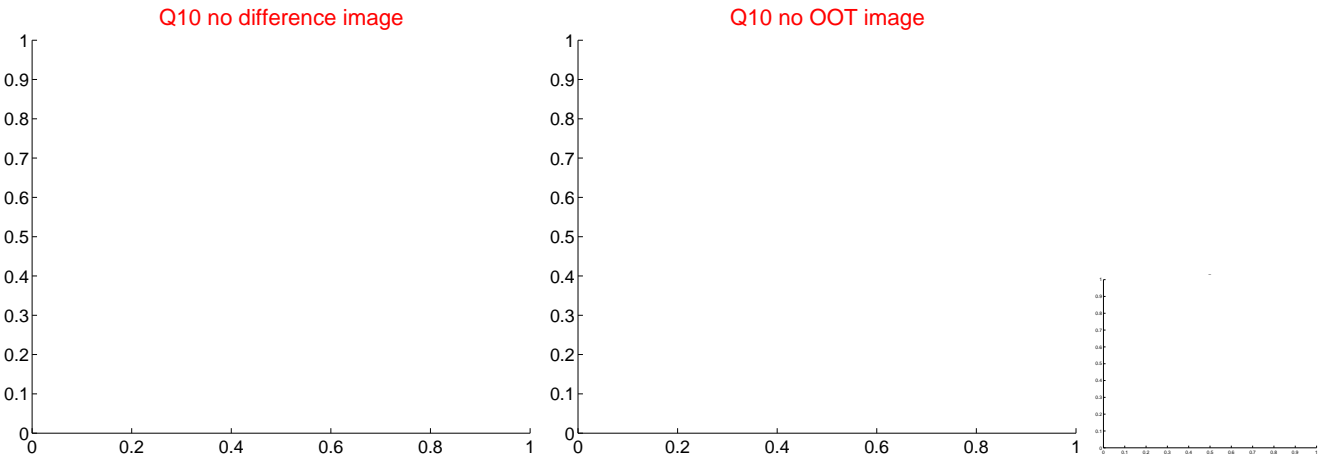
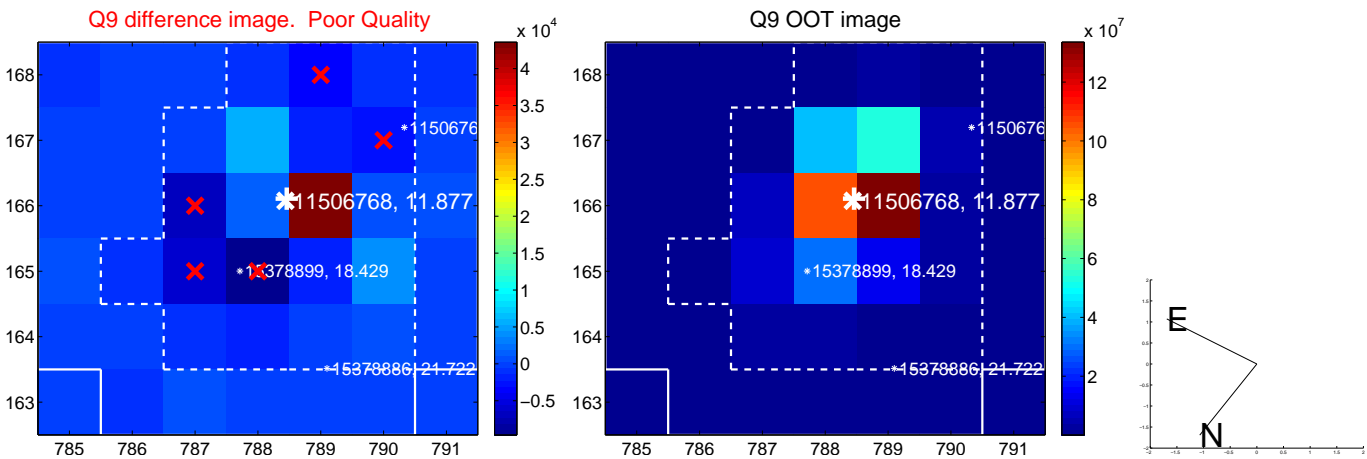
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



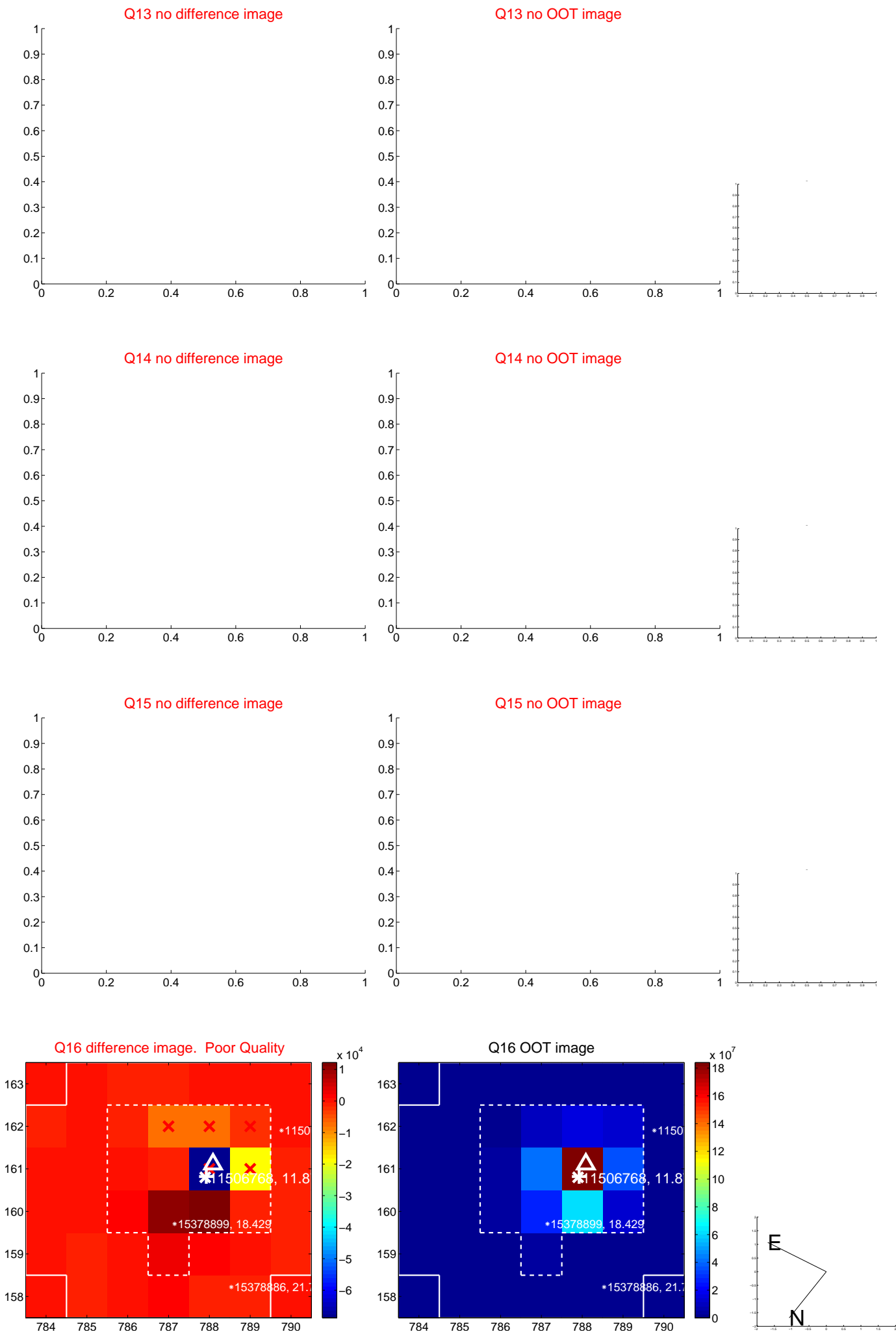
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



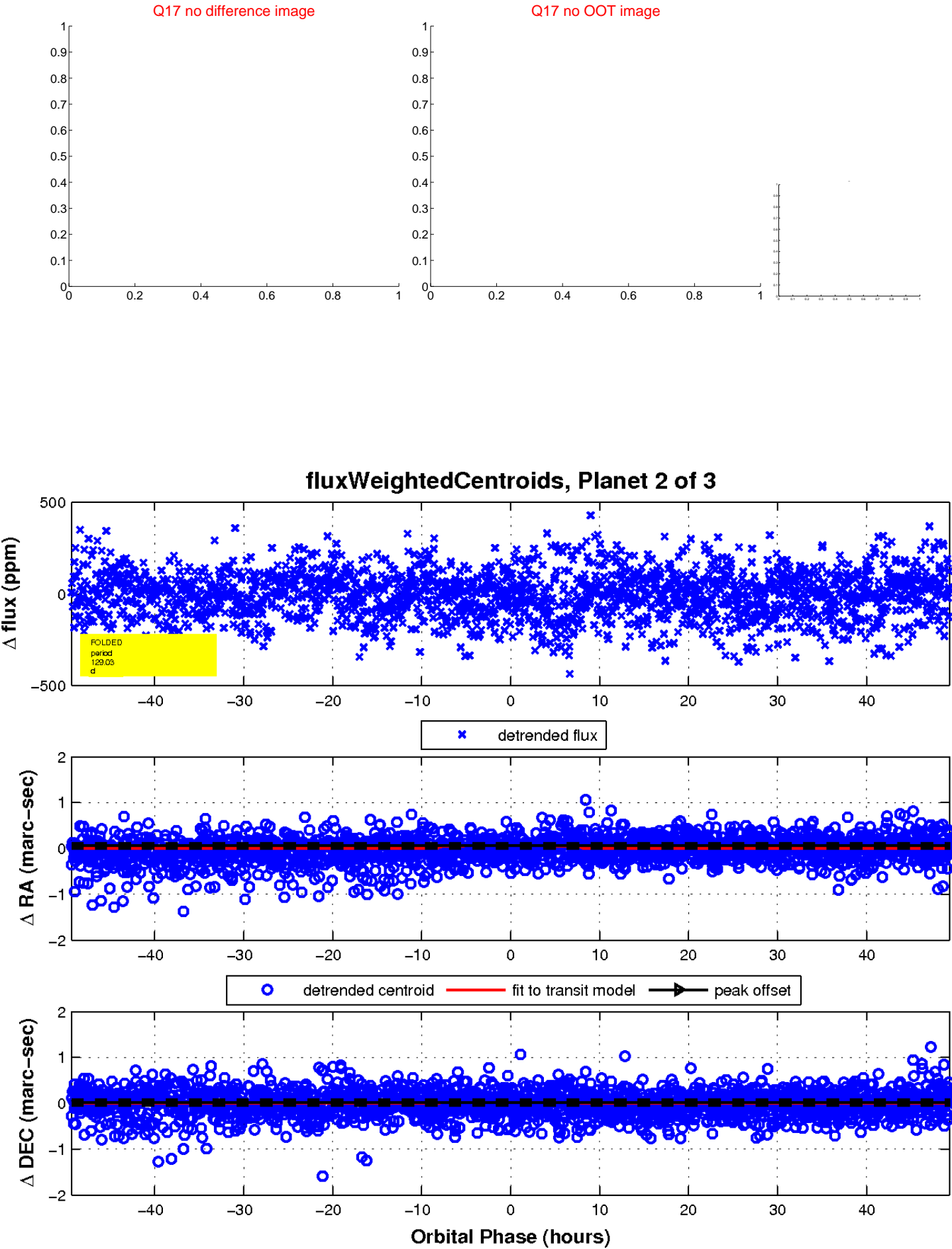
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

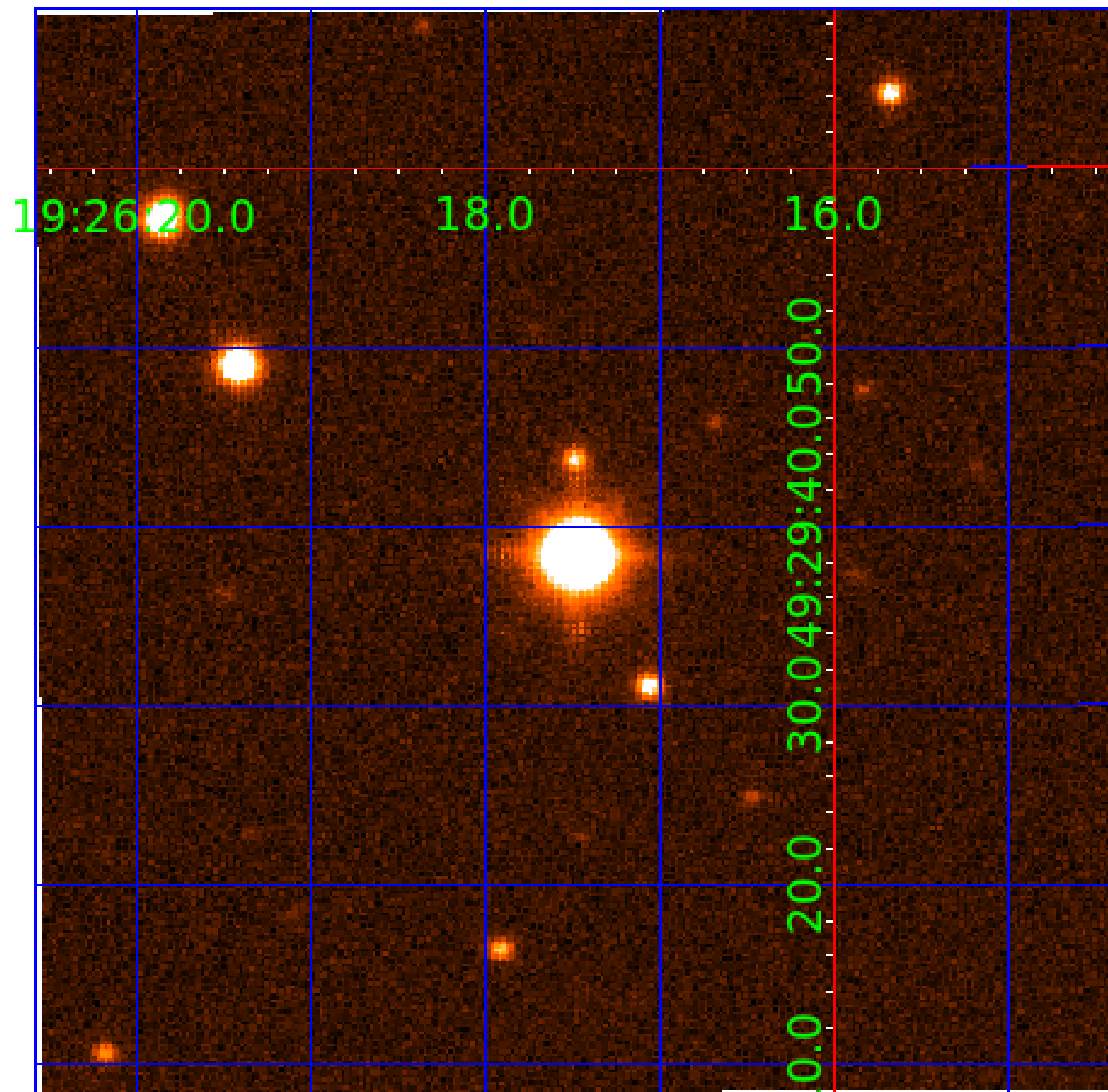


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011506768

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})
011506768-01	OBS	No	1.395228	132.347700	17.8	3.520	11.2	8.2	2.97	6845	1.46	20500.07
011506768-02	OBS	No	129.025038	248.021072	87.2	16.450	7.6	5.0	2.97	6845	3.05	49.02
011506768-03	OBS	No	229.968928	244.357894	145.9	8.206	7.3	5.2	2.97	6845	3.96	22.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011506768-01	OBS	FP	0.00	1	0	0	0	LPP_ALT—MOD_NONUNIQ_ALT
011506768-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011506768-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

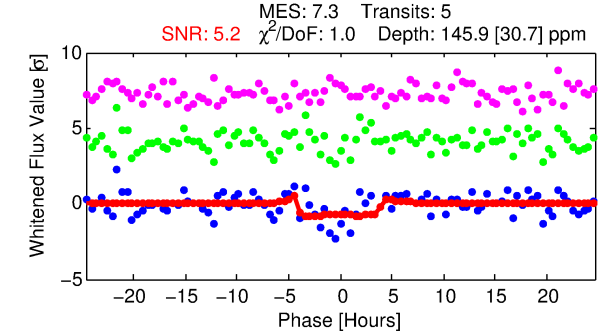
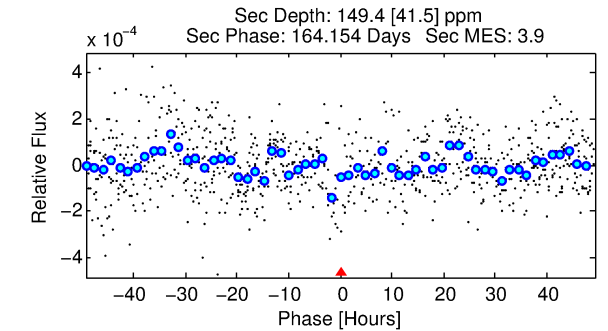
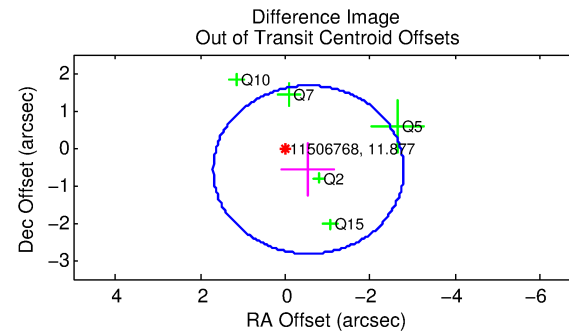
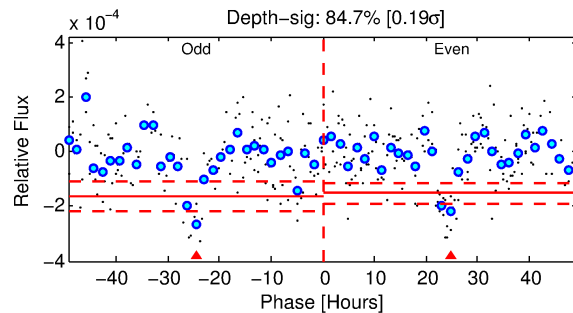
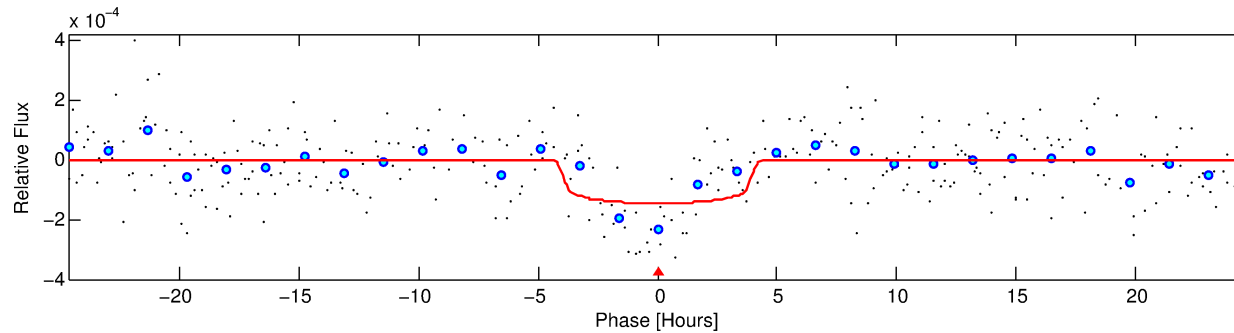
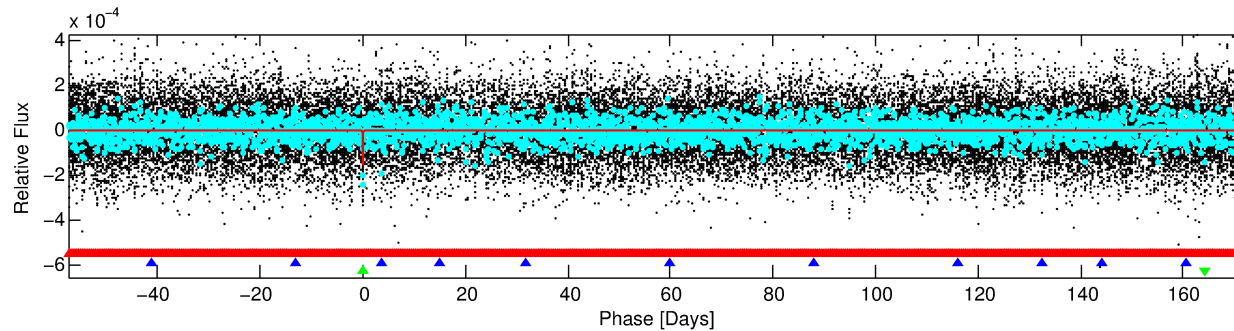
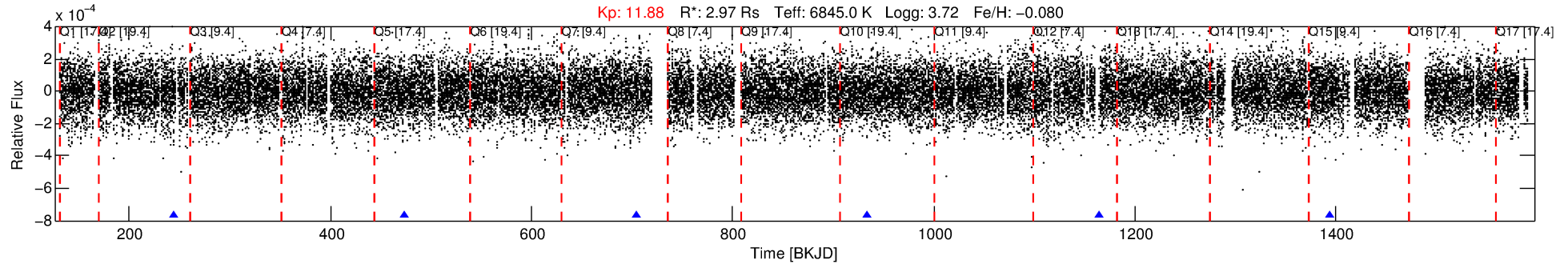
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011506768-03

No Significant Match Found

DV One-Page Summary

KIC: 11506768 Candidate: 3 of 3 Period: 229.969 d



DV Fit Results:

Period = 229.96893 [0.00455] d
Epoch = 244.3579 [0.0165] BKJD
Rp/R* = 0.0122 [0.0058]
a/R* = 134.03 [356.92]
b = 0.80 [1.23]
Seff = 22.68 [12.17]
Teq = 556 [75] K
Rp = 3.96 [2.34] Re
a = 0.8757 [0.2908] AU
Ag = 4027.82 [4497.51] [0.90 σ]
Teffp = 6854 [1703] K [3.69 σ]

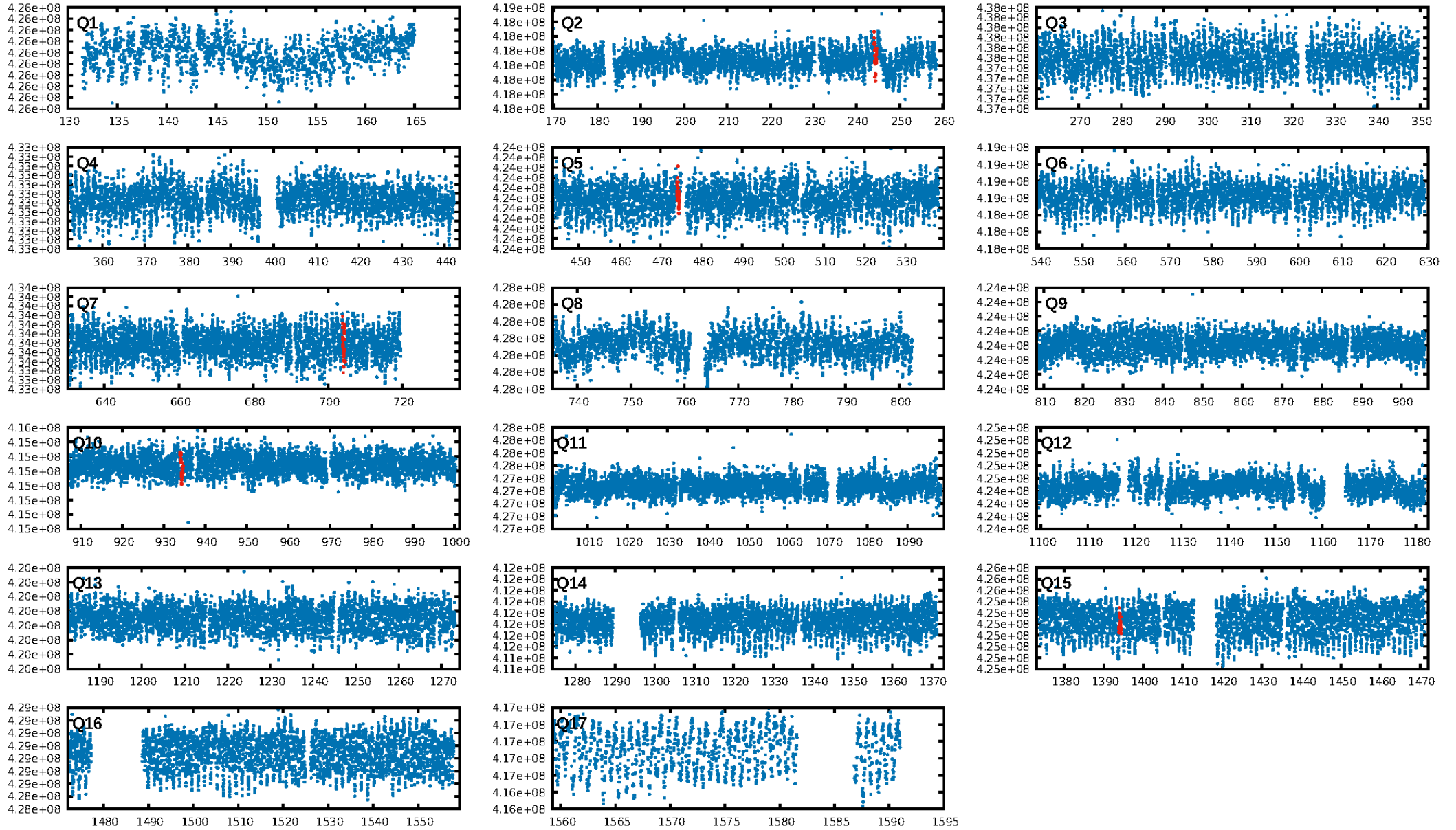
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [131.78 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 50.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.27e-10
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 0.5538
Centroid-sig: 2.7%
Centroid-so: 1.694 arcsec [2.06 σ]
OotOffset-rm: 0.800 arcsec [1.07 σ]
KicOffset-rm: 0.913 arcsec [1.20 σ]
OotOffset-st: 2/2/0/1 [5]
KicOffset-st: 2/2/0/1 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 0.00 [0/5]

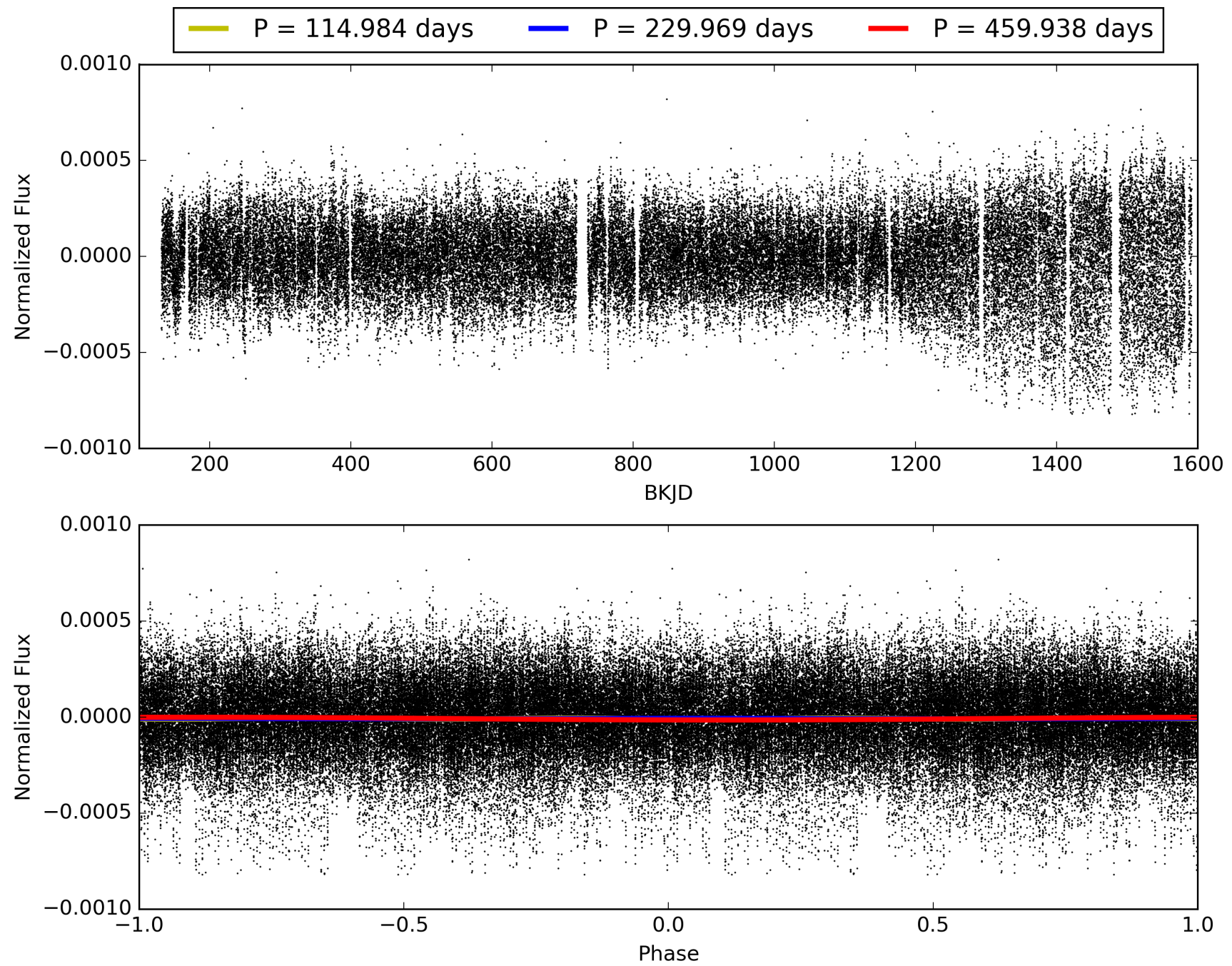
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:56:55 Z

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

TCE 011506768-03, PDC Light Curves

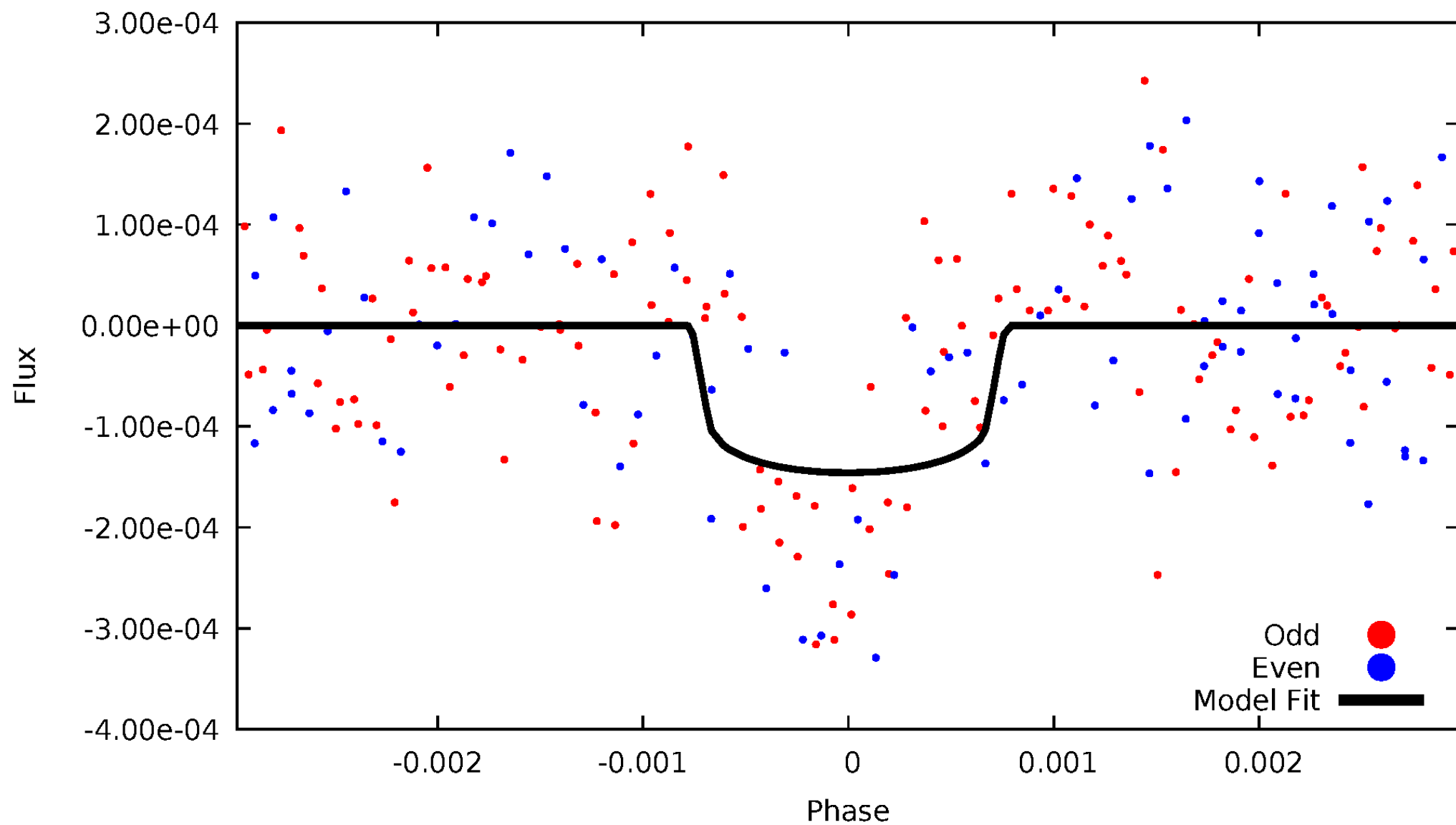


TCE 011506768-03



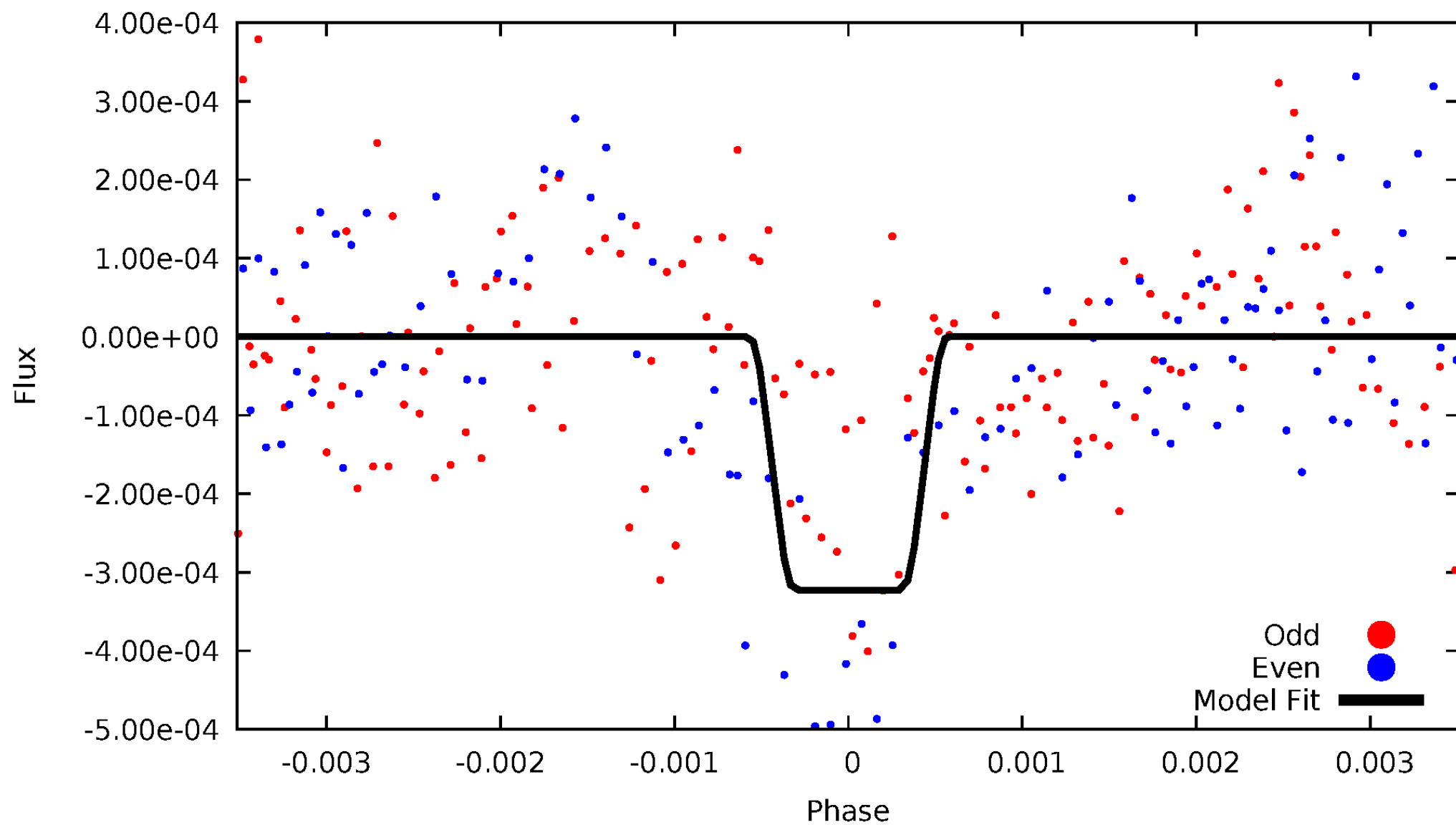
DV Odd/Even

TCE 011506768-03

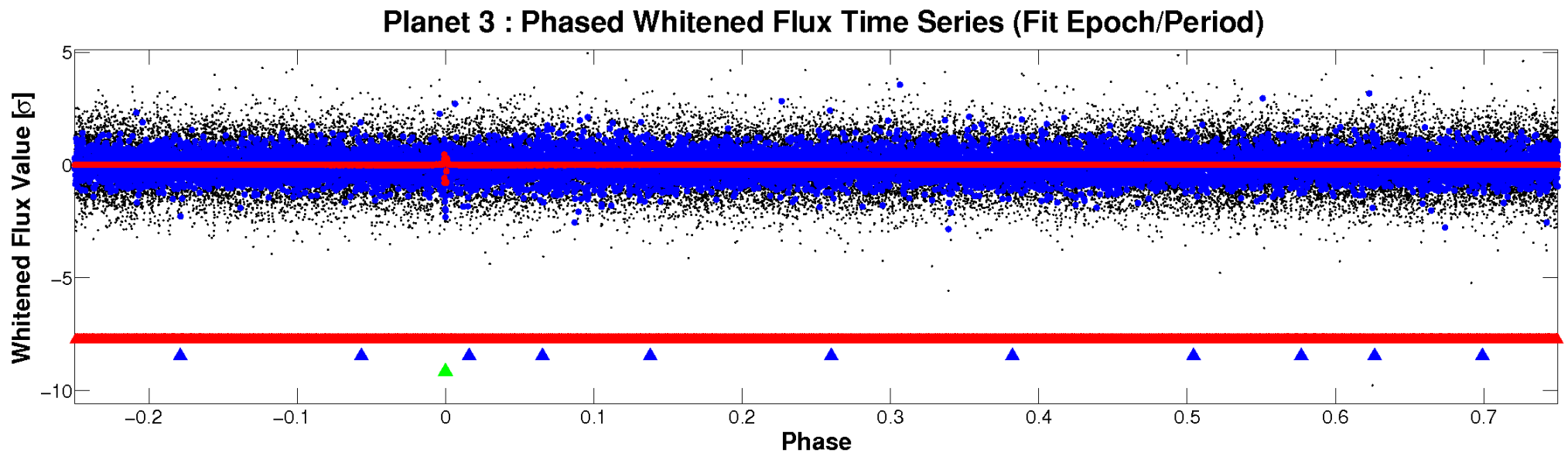
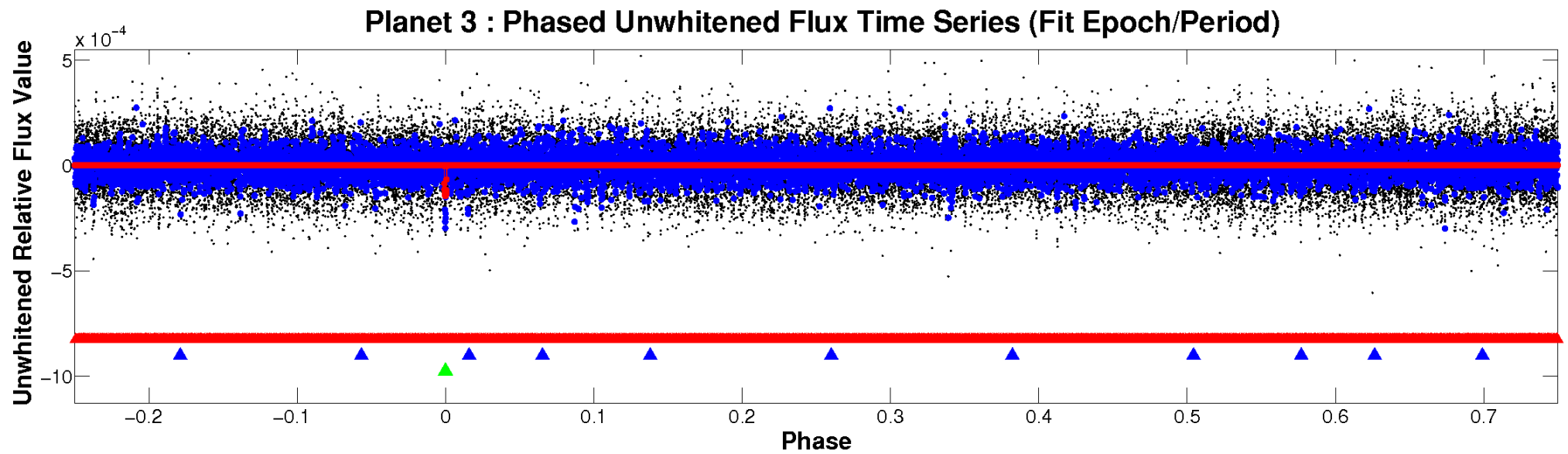


ALT Odd/Even

TCE 011506768-03

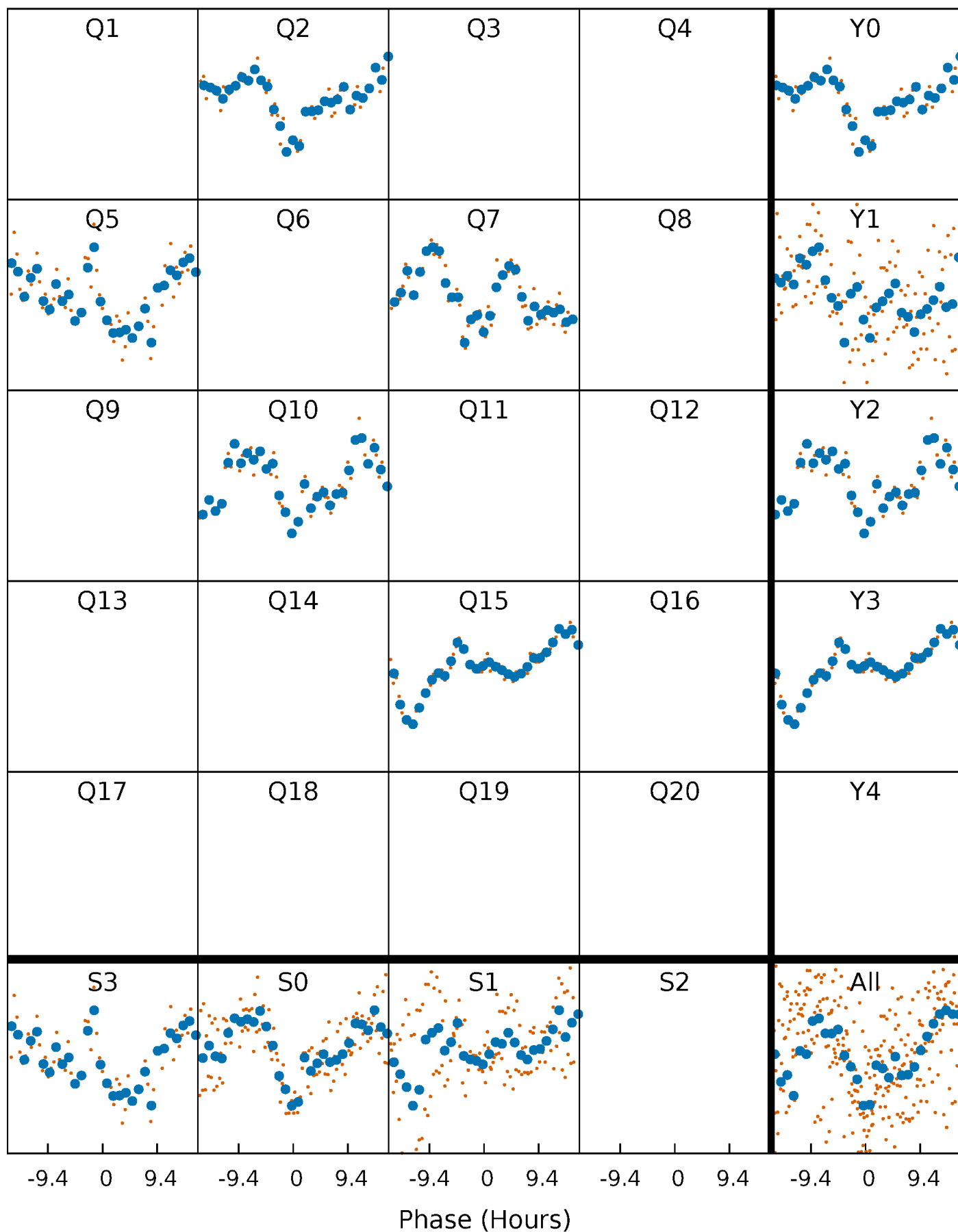


Non-Whitened Vs. Whitened Light Curve



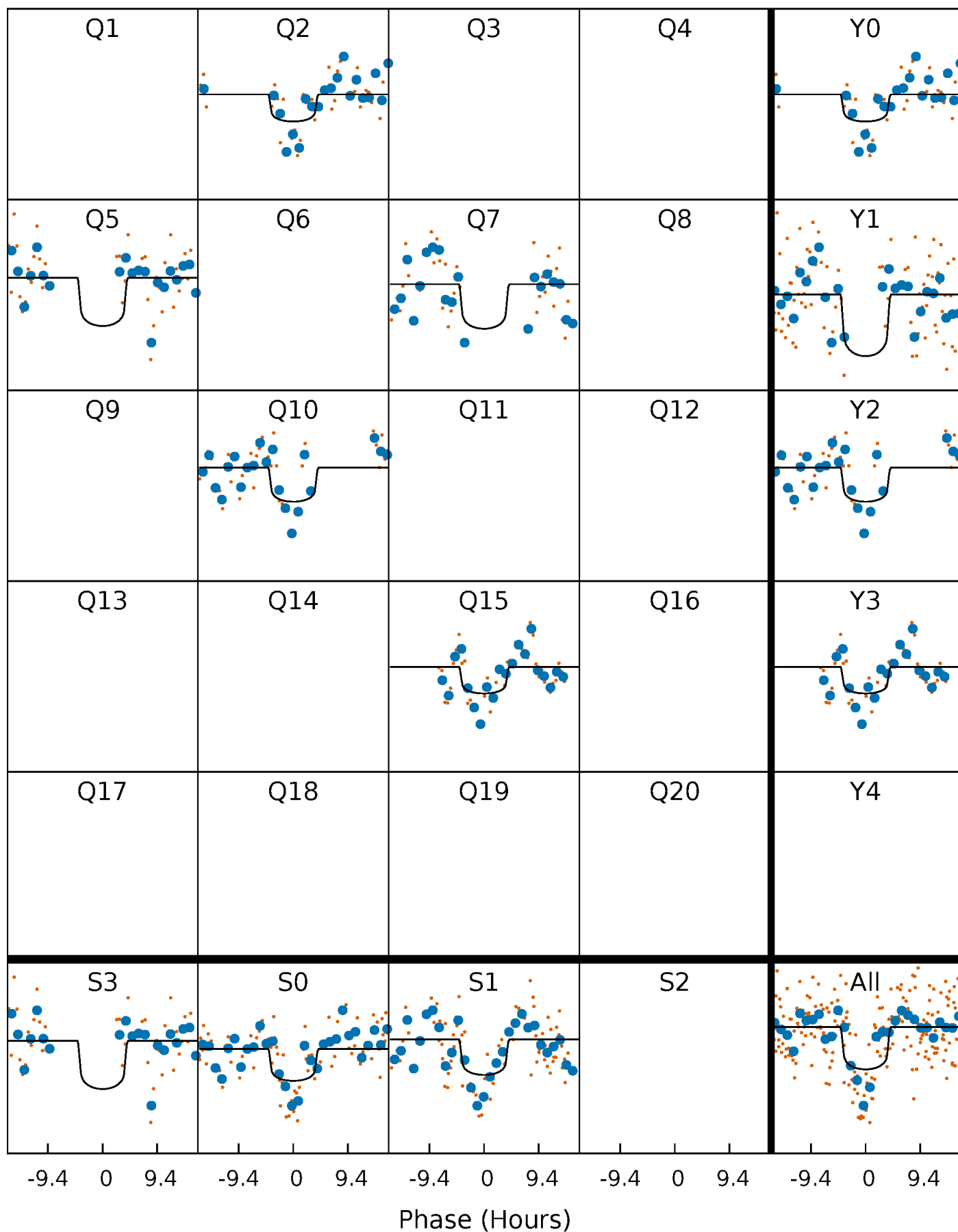
PDC Quarter-Phased Transit Curves

TCE 011506768-03 P=229.968928 Days $T_0=244.357894$ (BKJD)



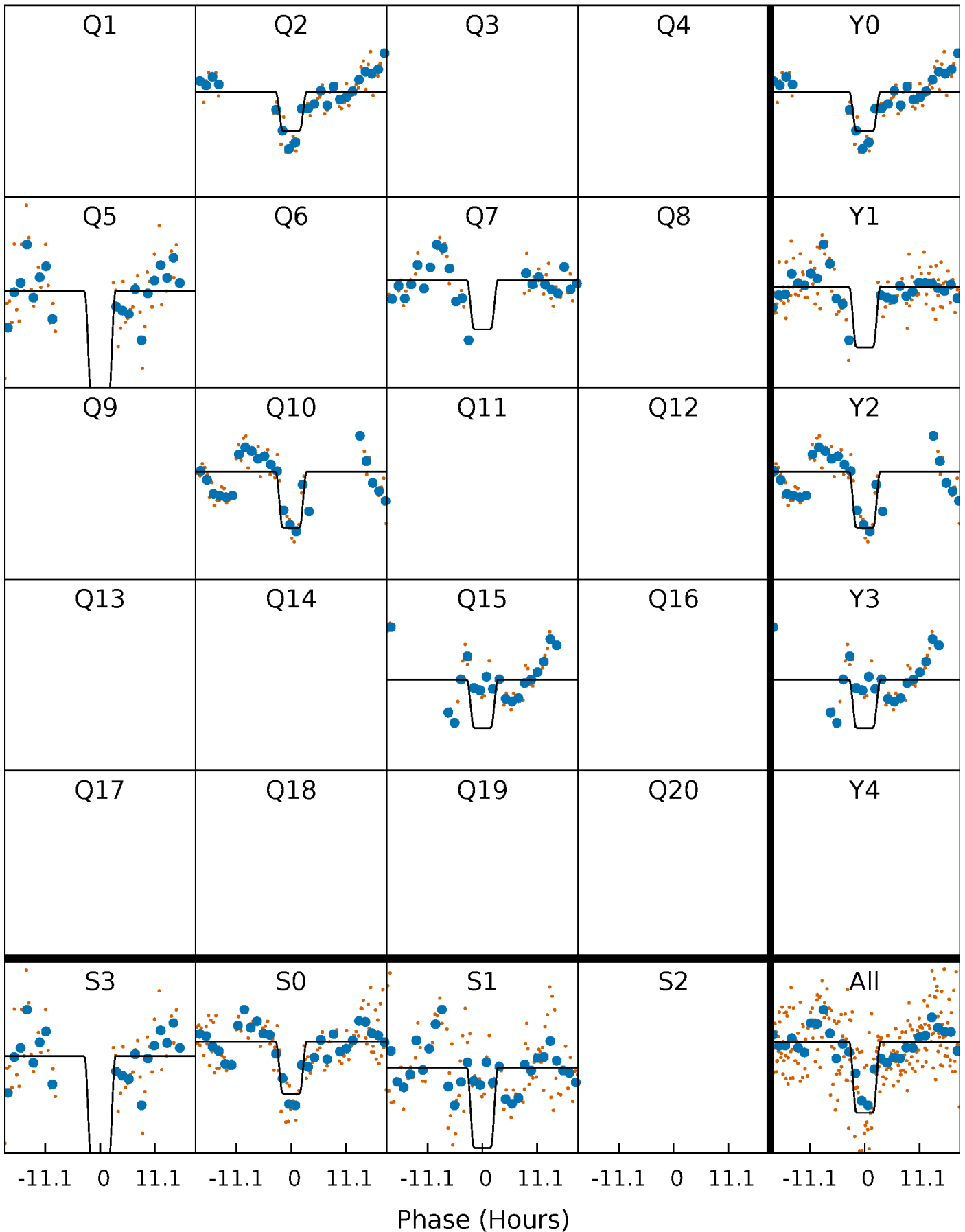
DV Quarter-Phased Transit Curves

TCE 011506768-03 P=229.968928 Days $T_0=244.357894$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

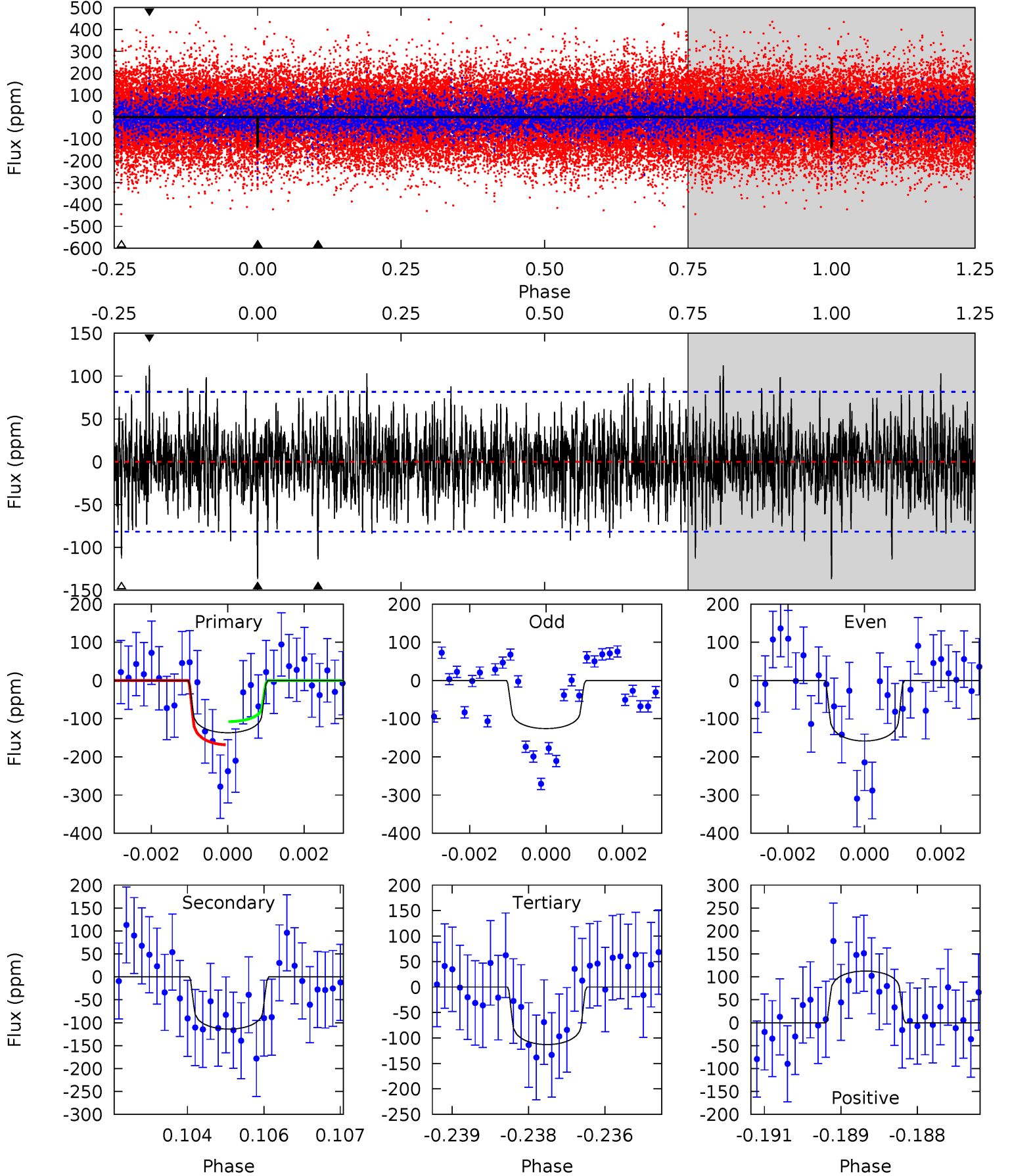
TCE 011506768-03 $P=229.963719$ Days $T_0=244.351002$ (BKJD)



DV Model-Shift Uniqueness Test

011506768-03, $P = 229.968928$ Days, $E = 14.388966$ Days

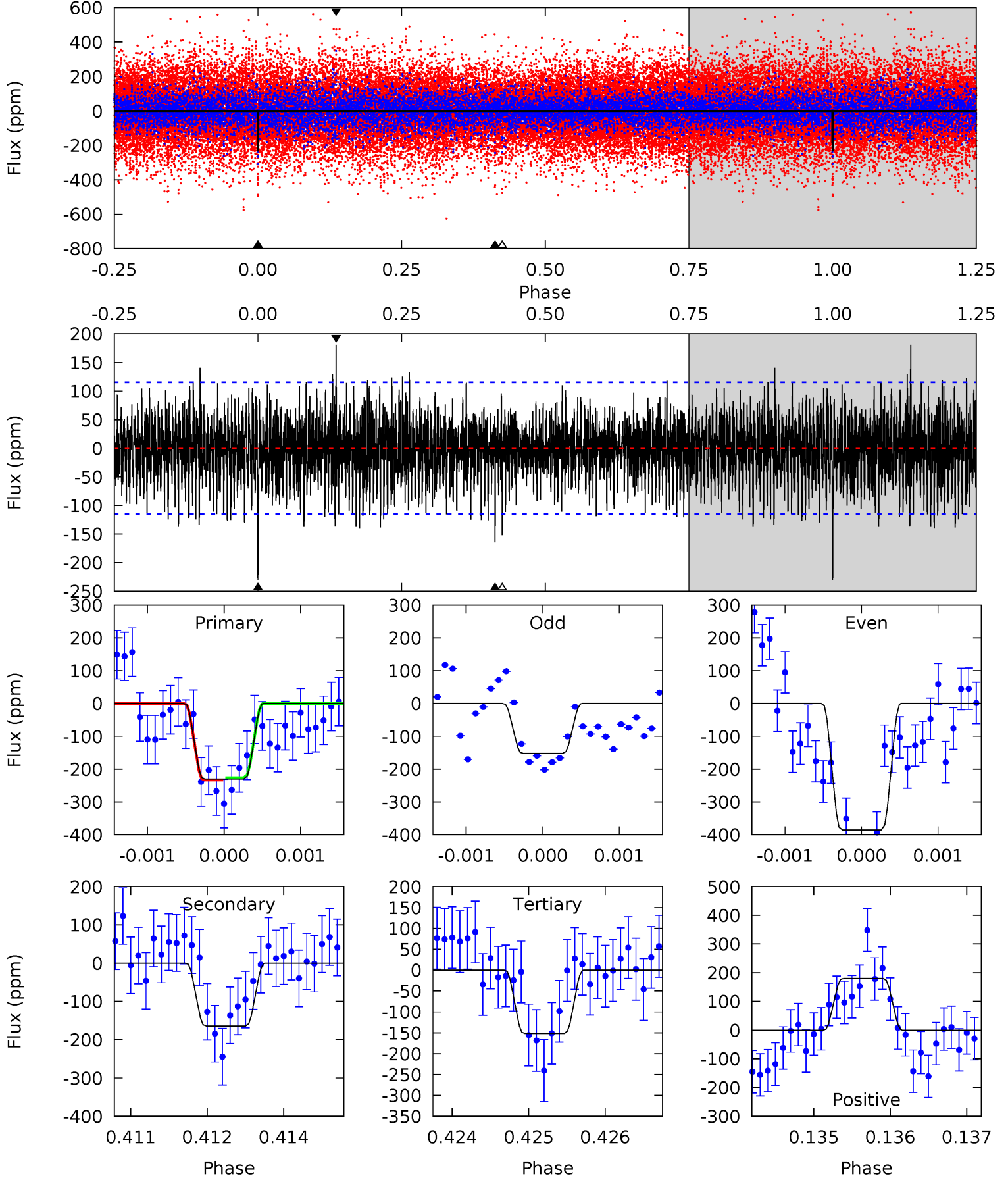
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.02	7.51	7.44	7.42	5.38	3.17	2.01	1.58	1.60	0.07	0.09	1.00	0.88	0.45	1.99



Alt Model-Shift Uniqueness Test

011506768-03, $P = 229.963719$ Days, $E = 14.387283$ 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	7.73	7.15	8.50	5.43	3.26	2.13	3.68	2.32	0.58	-0.77	5.16	0.84	0.44	0.17



Stellar Parameters For KIC 011506768

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6845^{+184}_{-204}	$3.720^{+0.304}_{-0.076}$	$-0.080^{+0.250}_{-0.300}$	$2.974^{+0.452}_{-1.054}$	$1.694^{+0.180}_{-0.309}$	$0.091^{+0.182}_{-0.028}$
	+3%/-3%	+8%/-2%	+312%/-375%	+15%/-35%	+11%/-18%	+200%/-31%
Source	PHO1	FLK73	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 011506768-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-114 ± 15	$3.67^{+1.95}_{-1.57}$	758^{+46}_{-65}	6303^{+2680}_{-1052}	3544^{+7863}_{-2045}
Alt.	-164 ± 21	$5.39^{+1.99}_{-1.83}$	755^{+46}_{-64}	5702^{+1290}_{-663}	2363^{+3030}_{-1079}

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

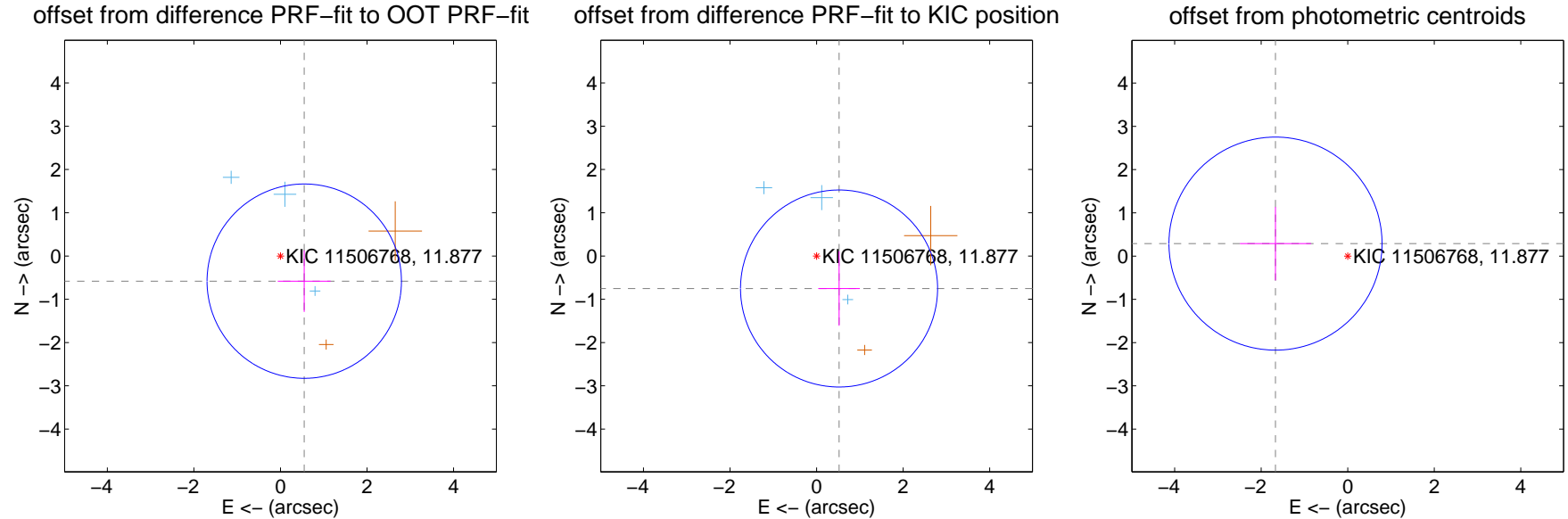
DV Centroid Data

Supplemental centroid analysis for 011506768-03. **Kepler magnitude: 11.88.** Transit SNR 5.25

There are 3 quarters with good PRF difference image offsets

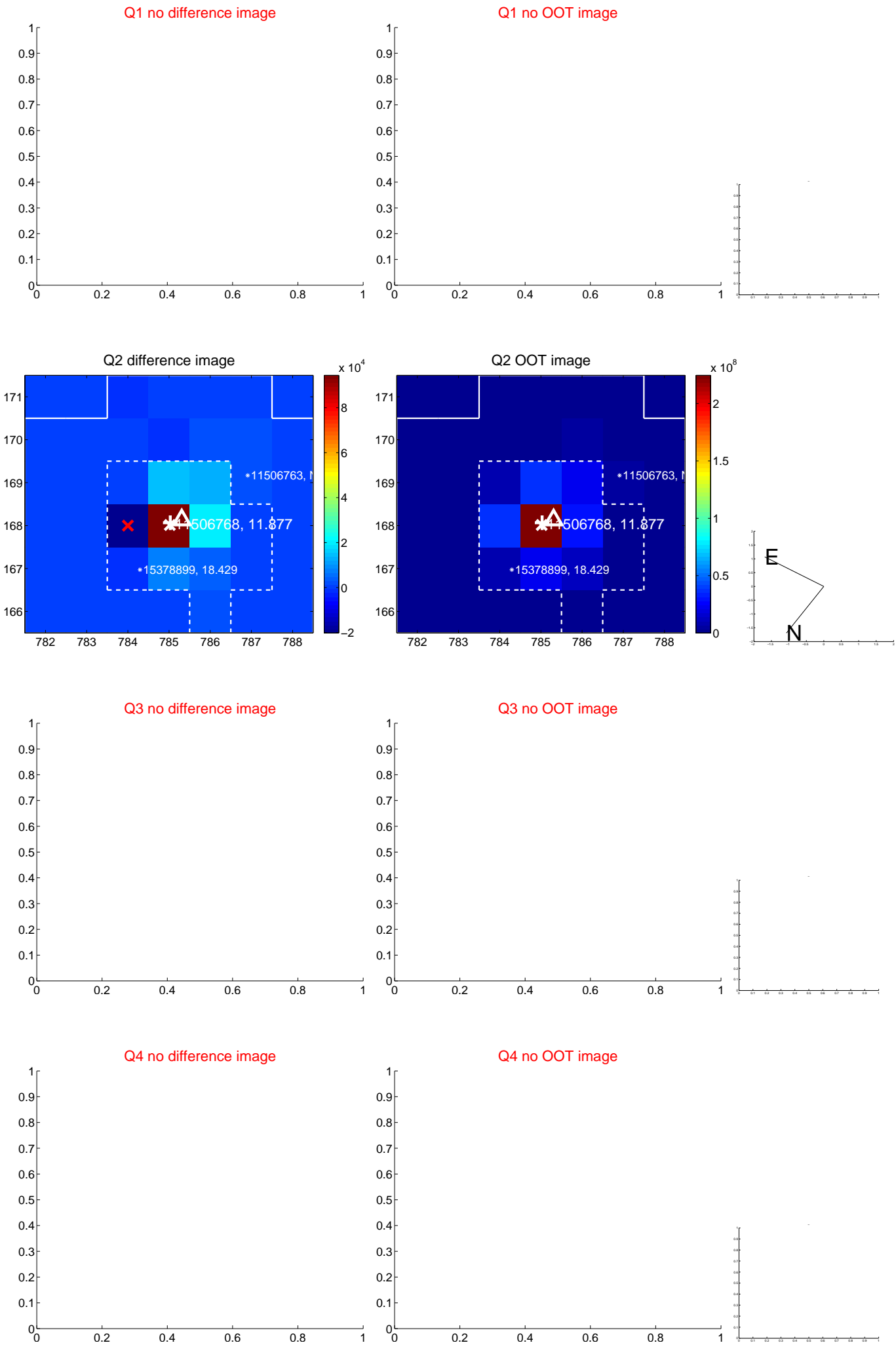
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.800 ± 0.749	1.07	-0.550 ± 0.612	-0.581 ± 0.711
PRF-fit source offset from KIC position	0.913 ± 0.759	1.20	-0.520 ± 0.480	-0.751 ± 0.861
photometric centroid source offset	1.69 ± 0.82	2.06	1.67 ± 0.82	0.29 ± 0.85

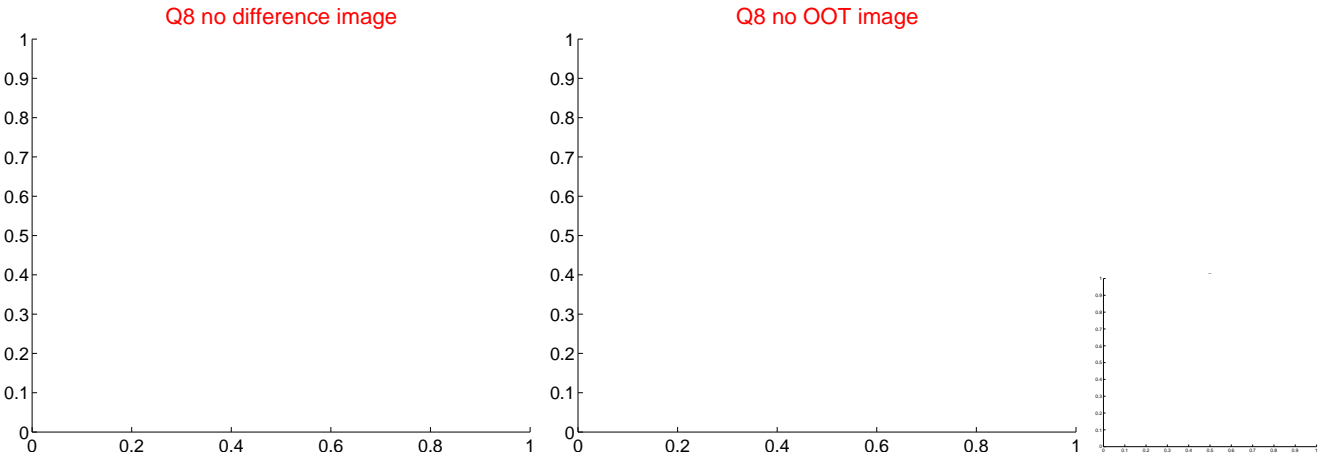
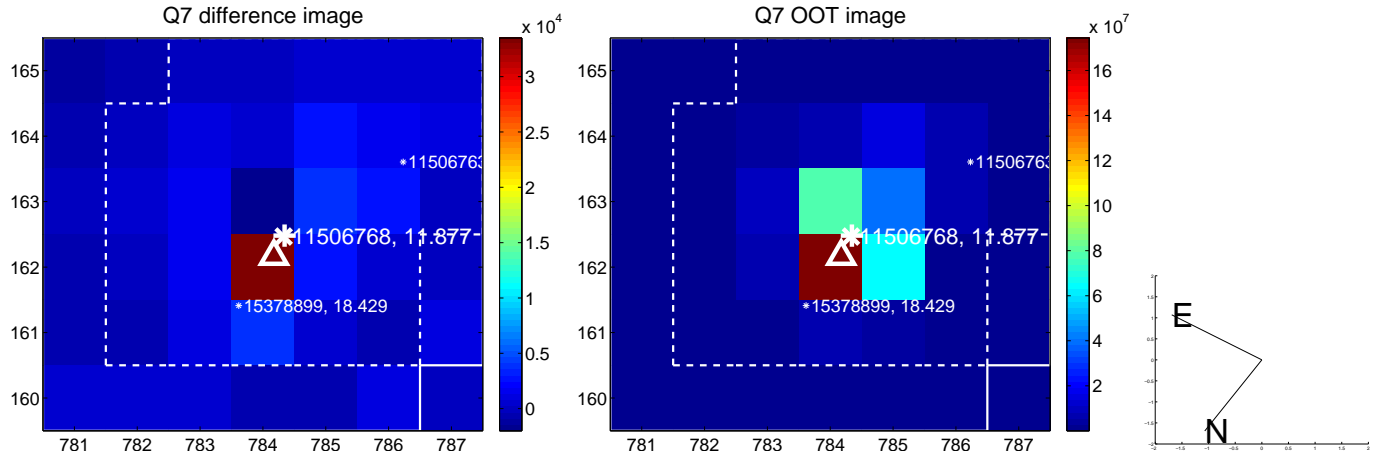
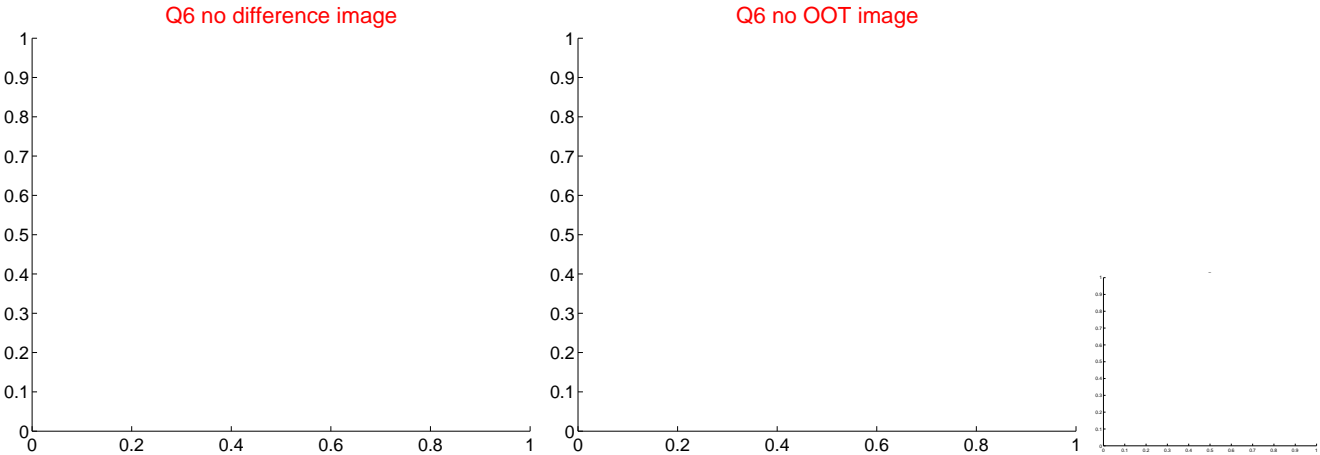
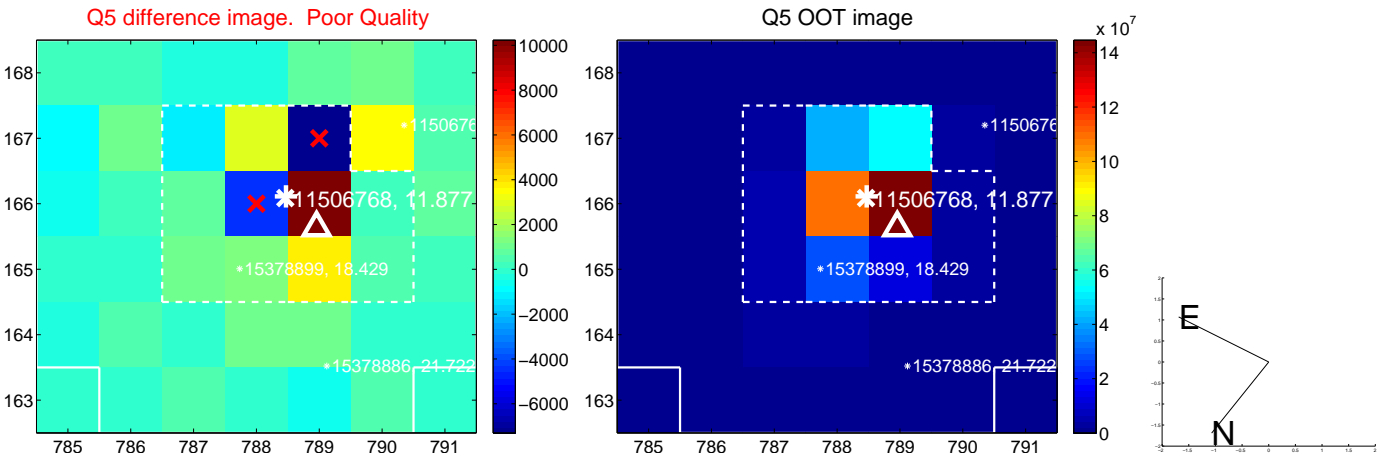


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

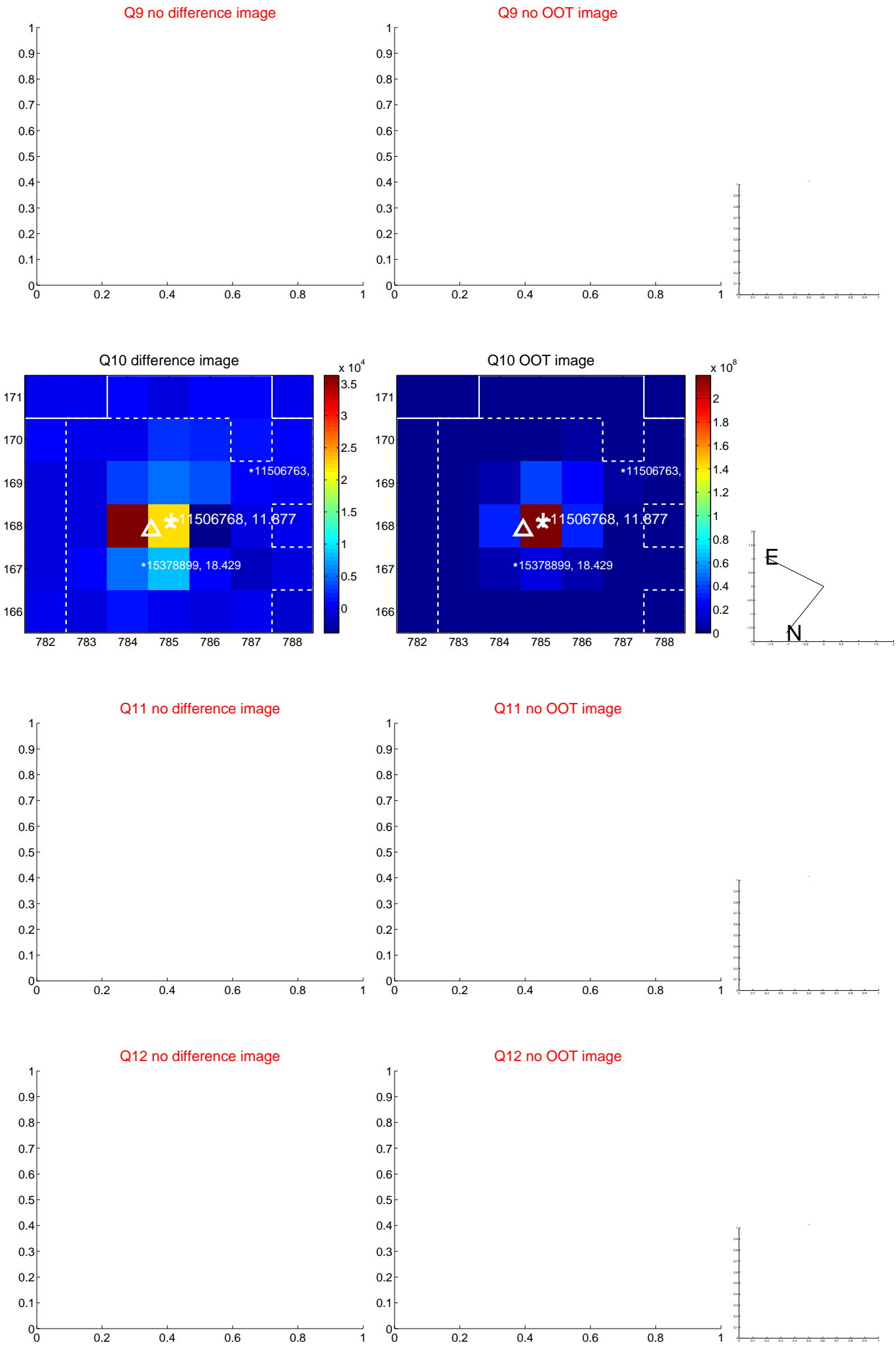
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



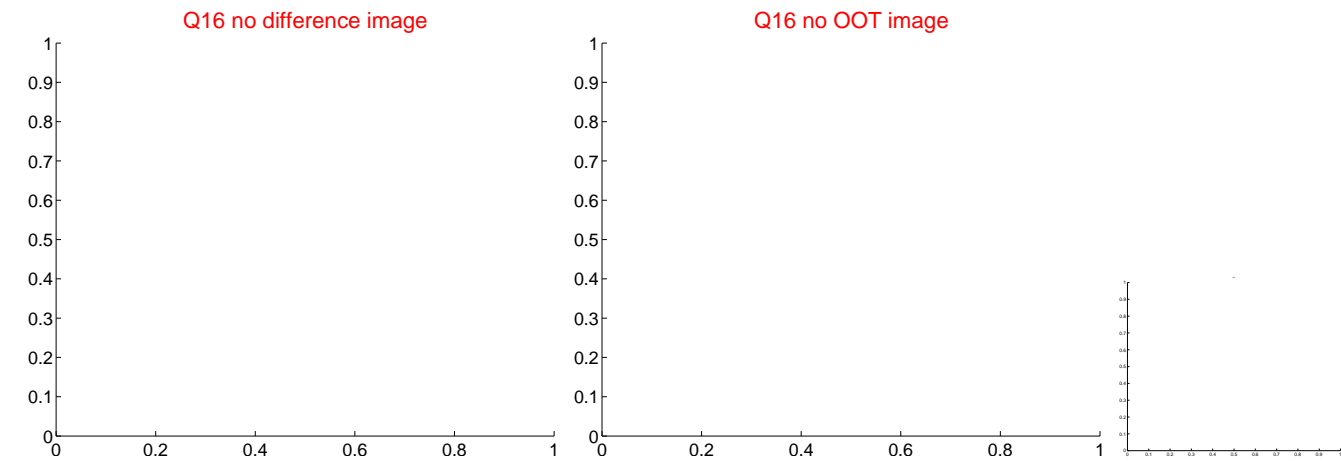
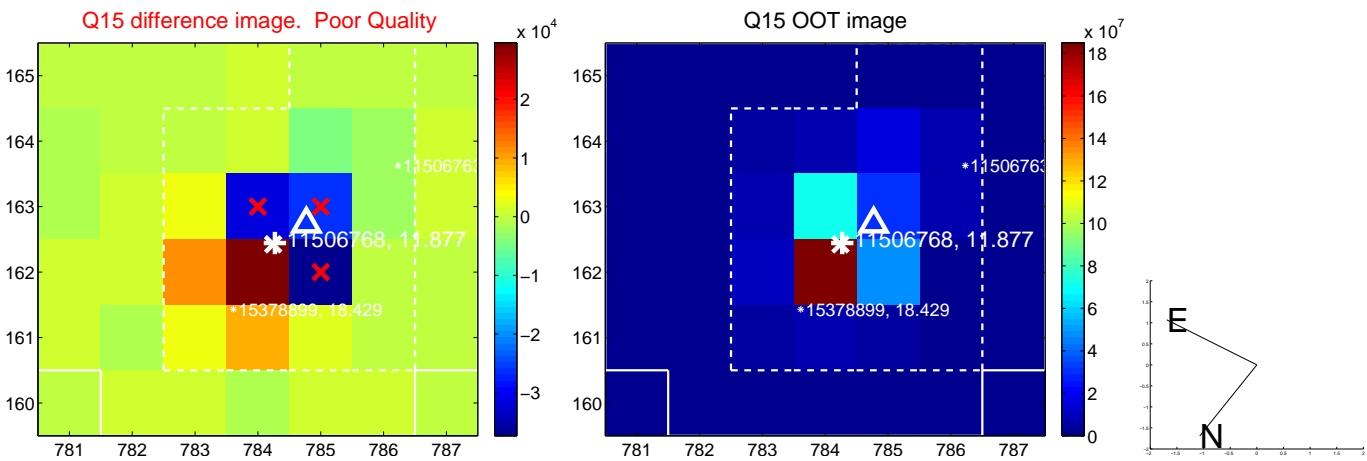
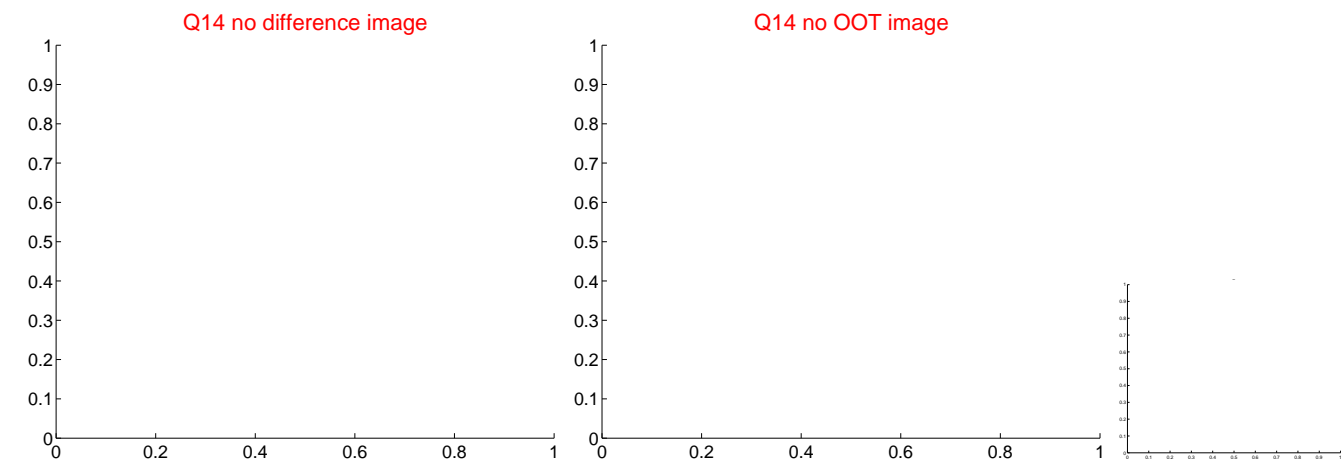
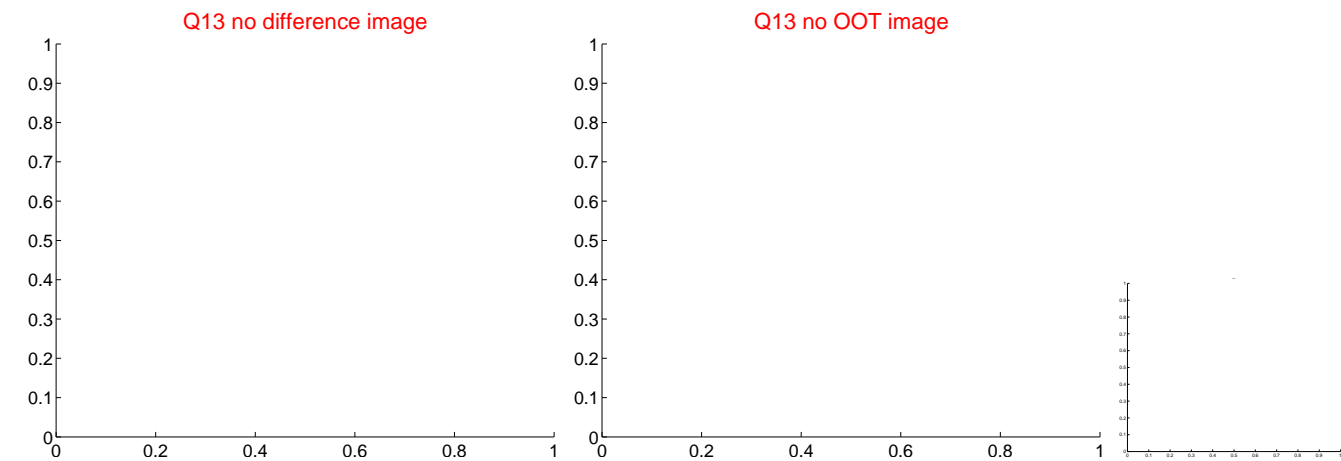
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



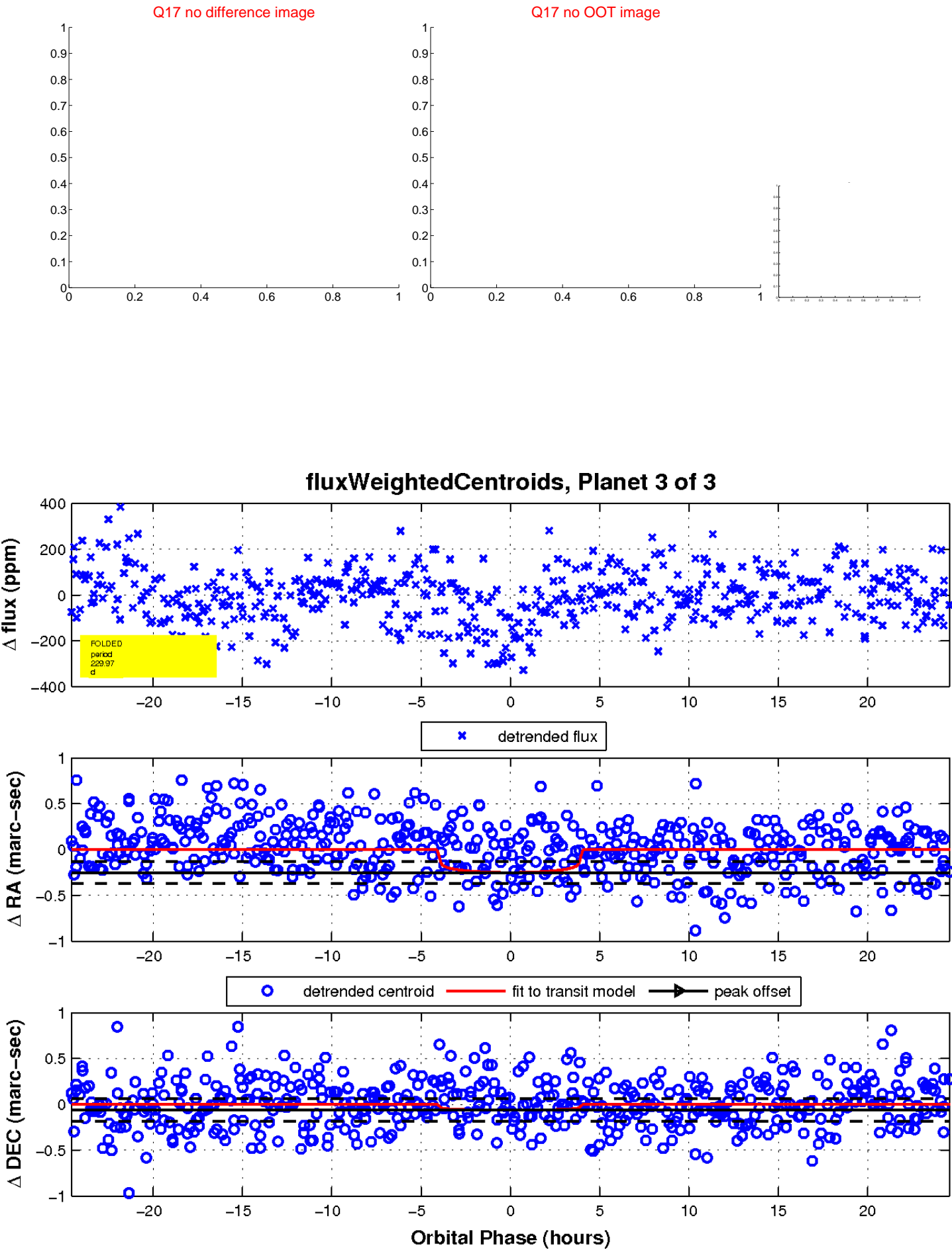
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

