

KIC 008344381

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})
008344381-01	OBS	No	0.576829	131.854944	18169.0	2.000	374.4	-1.0	2.01	8233	27.52	62197.18
008344381-02	OBS	No	1.730457	131.575700	4352.4	6.000	20.4	-1.0	2.01	8233	13.43	14375.35
008344381-03	OBS	No	1.730506	132.127406	2909.6	5.000	13.1	-1.0	2.01	8233	10.98	14374.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008344381-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_NOFITS
008344381-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_NOFITS
008344381-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

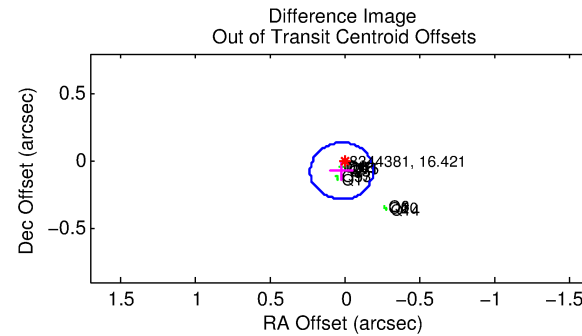
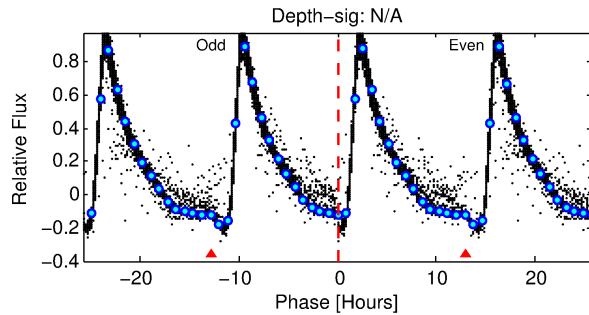
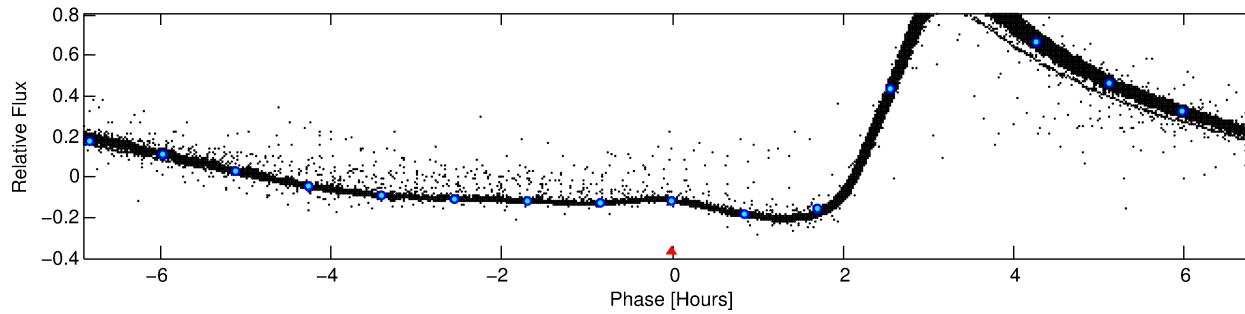
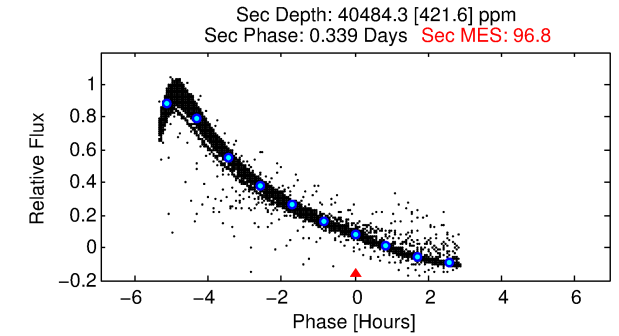
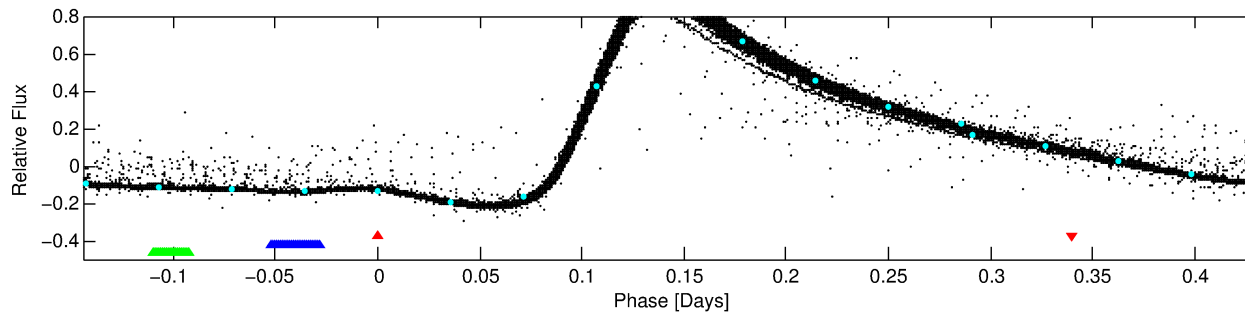
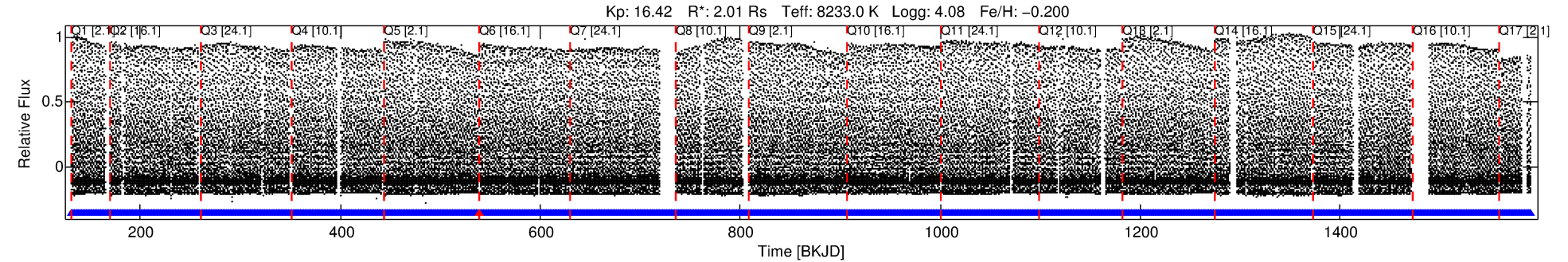
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008344381-01

No Significant Match Found

DV One-Page Summary

KIC: 8344381 Candidate: 1 of 3 Period: 0.577 d



TPS TCE Results:

Period = 0.57683 d
Epoch = 131.8549 BKJD

DV fit results are unavailable

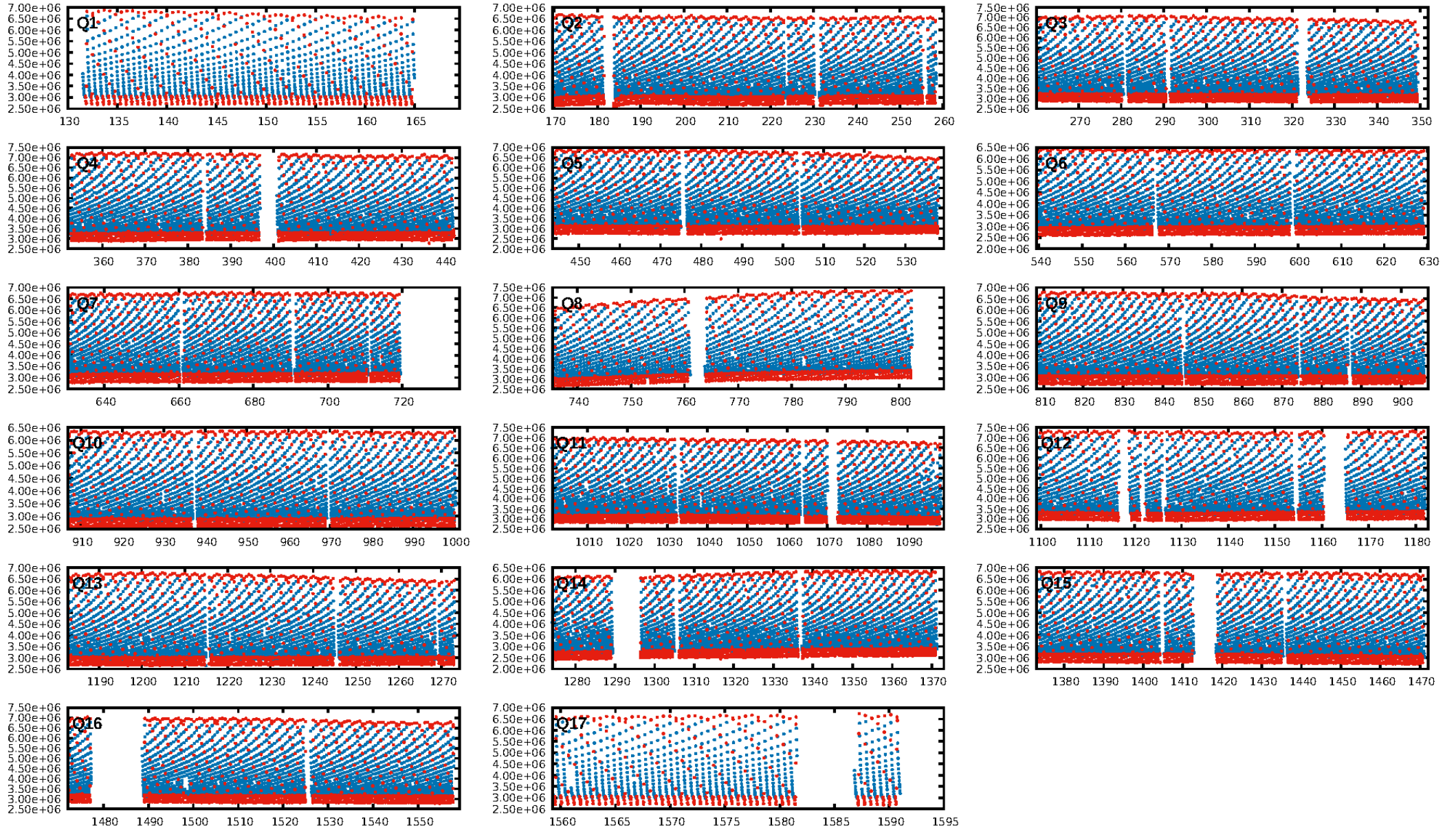
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [4.38s]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2225/2226]
GhostDiagnostic-chr: 1.019
Centroid-sig: N/A
Centroid-so: 0.610 arcsec [152.73σ]
OotOffset-rm: 0.076 arcsec [1.08σ]
KicOffset-rm: 0.141 arcsec [2.03σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

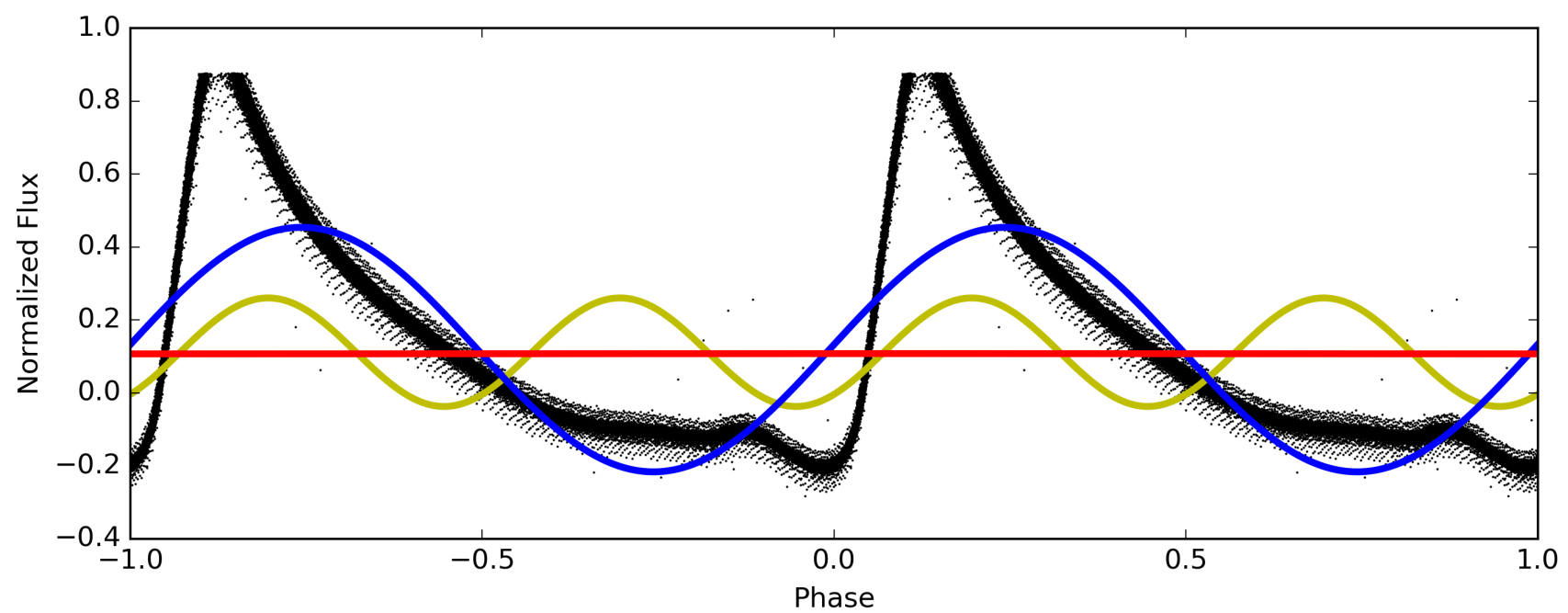
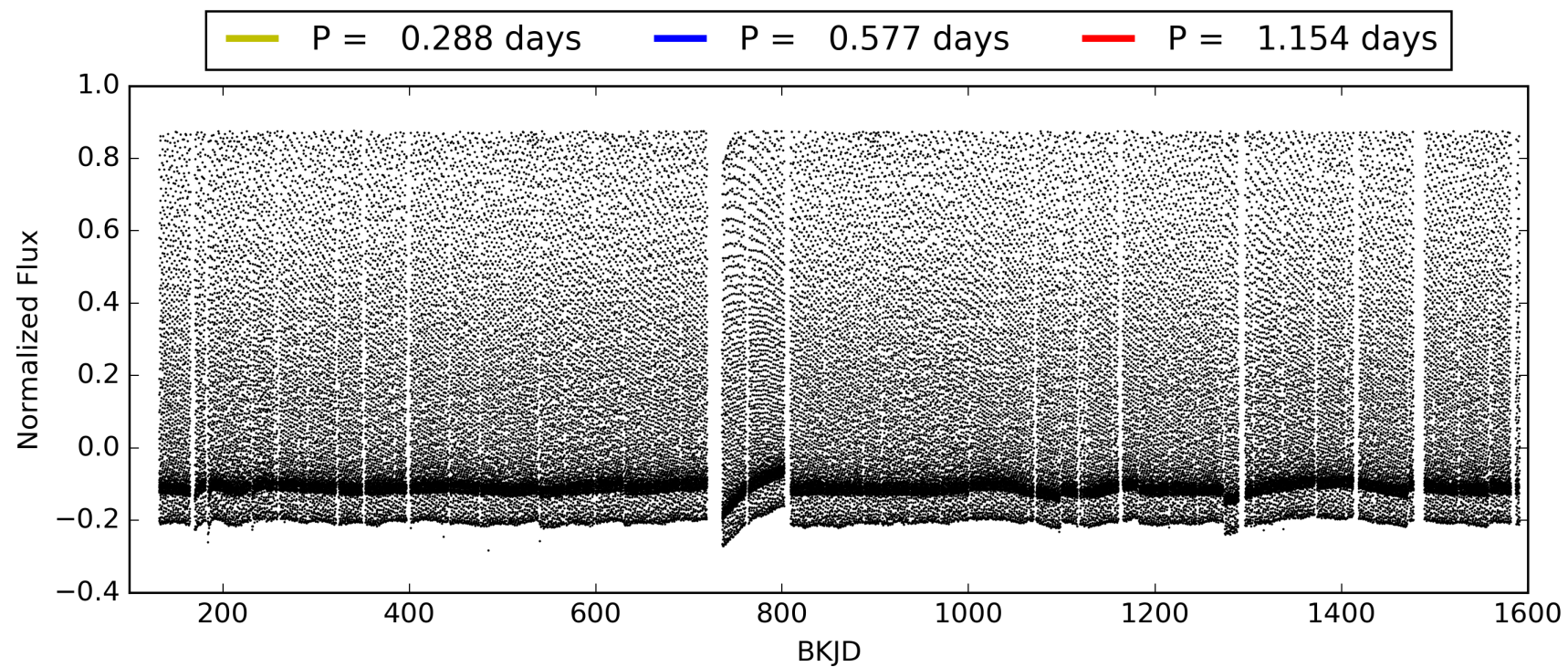
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:03:48 Z

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

TCE 008344381-01, PDC Light Curves

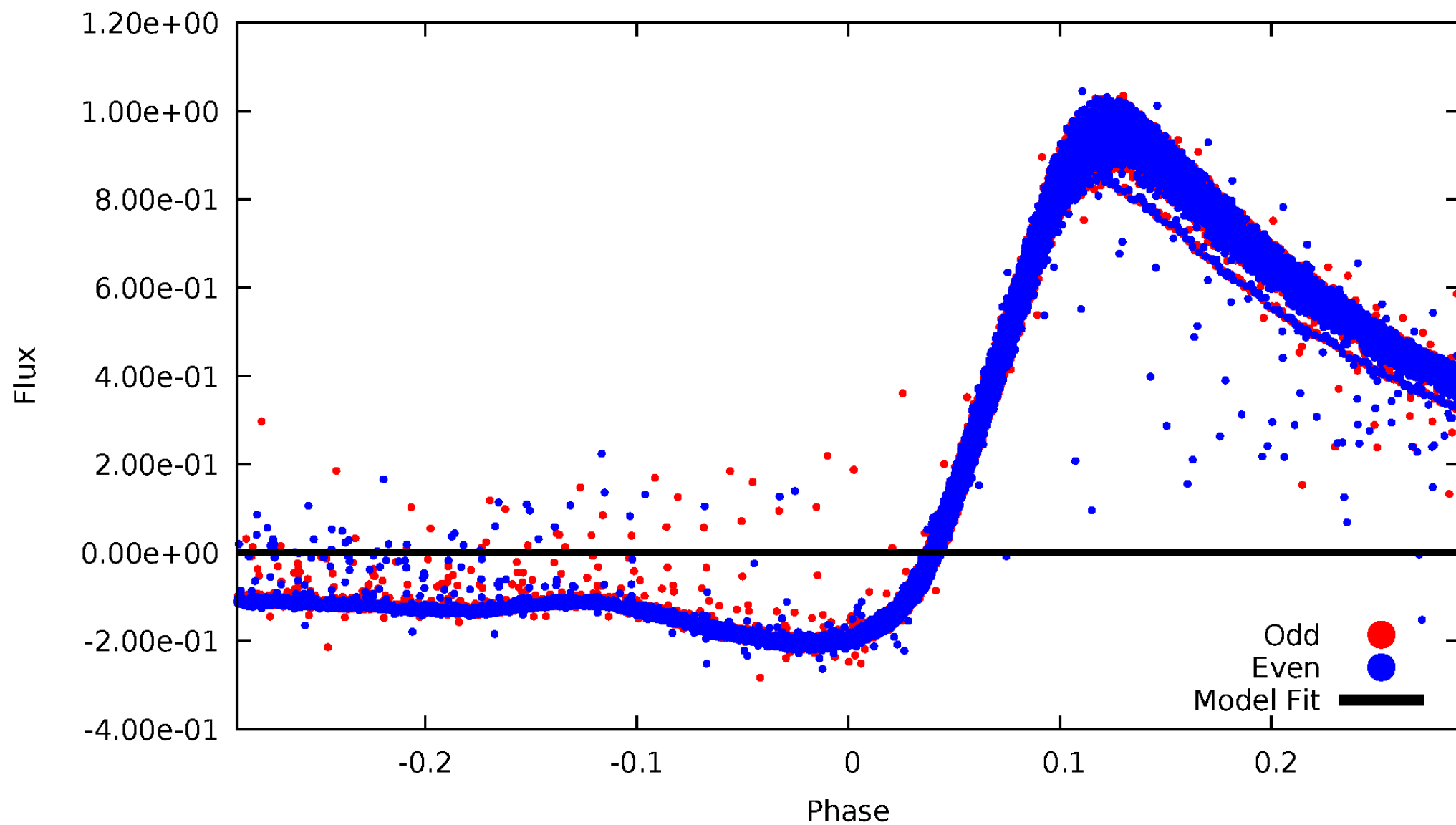


TCE 008344381-01



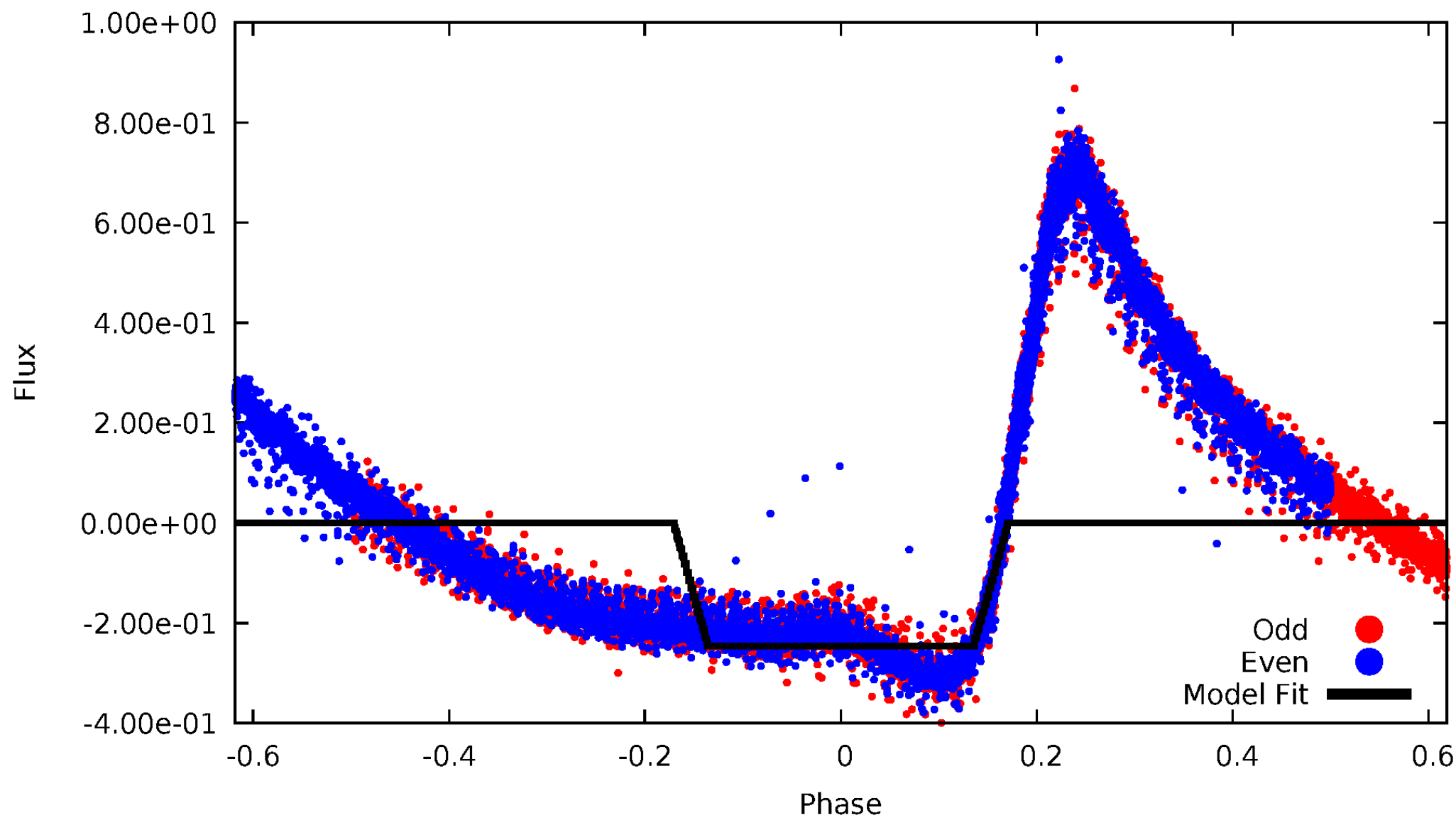
DV Odd/Even

TCE 008344381-01



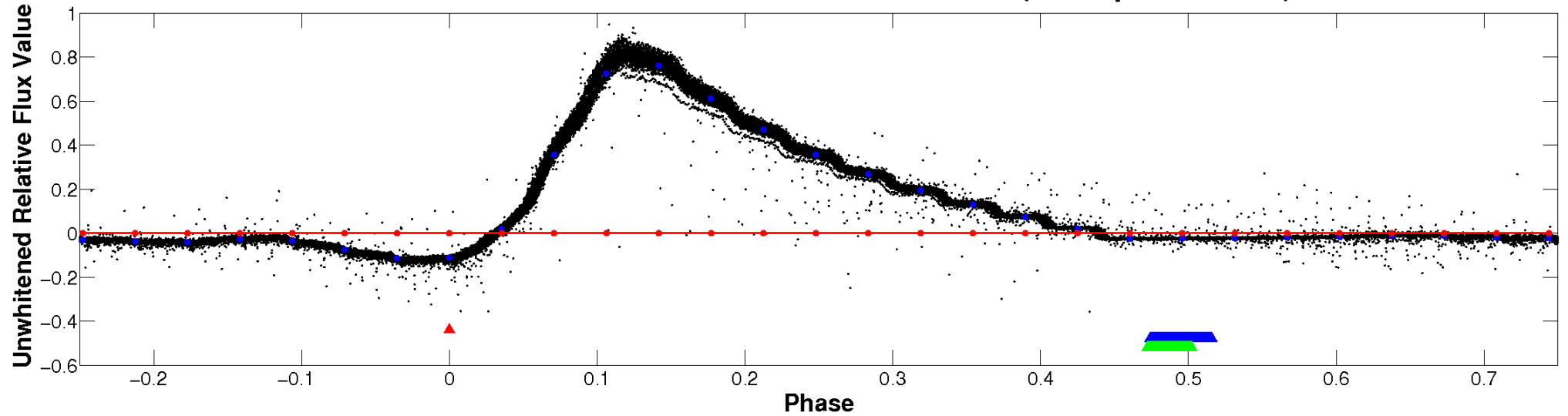
ALT Odd/Even

TCE 008344381-01

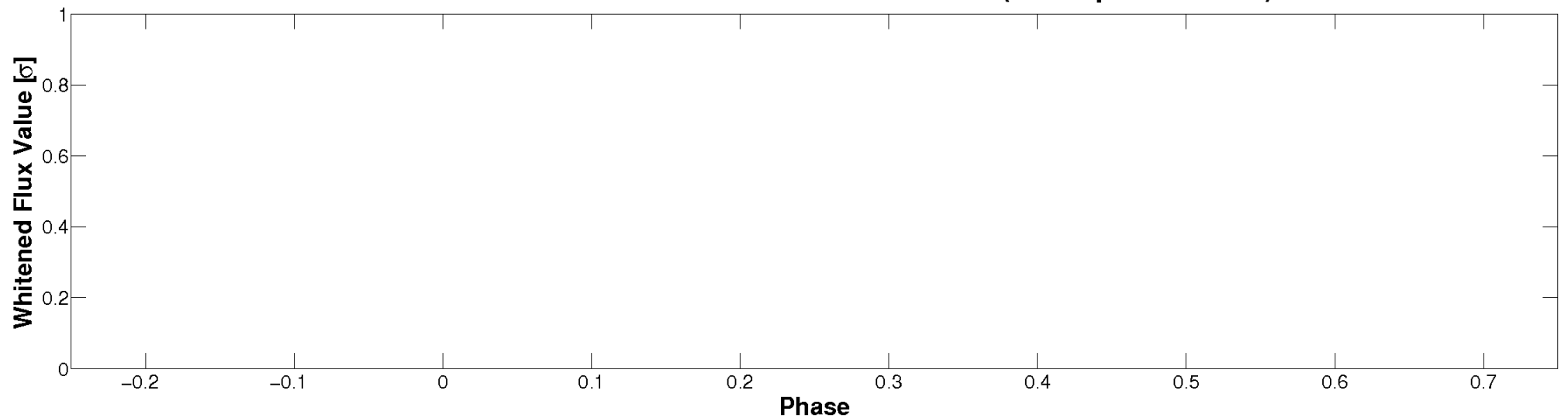


Non-Whitened Vs. Whitened Light Curve

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

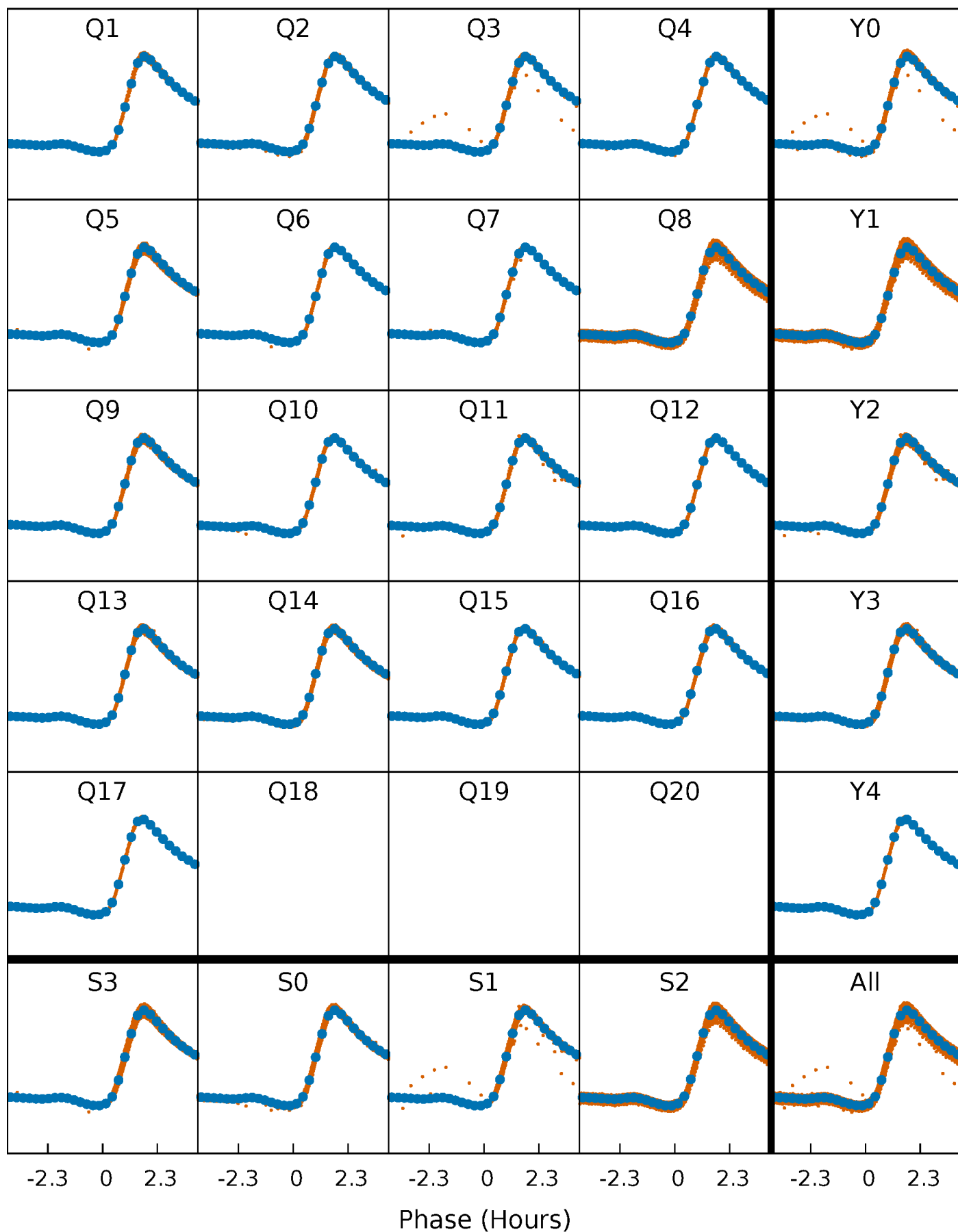


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



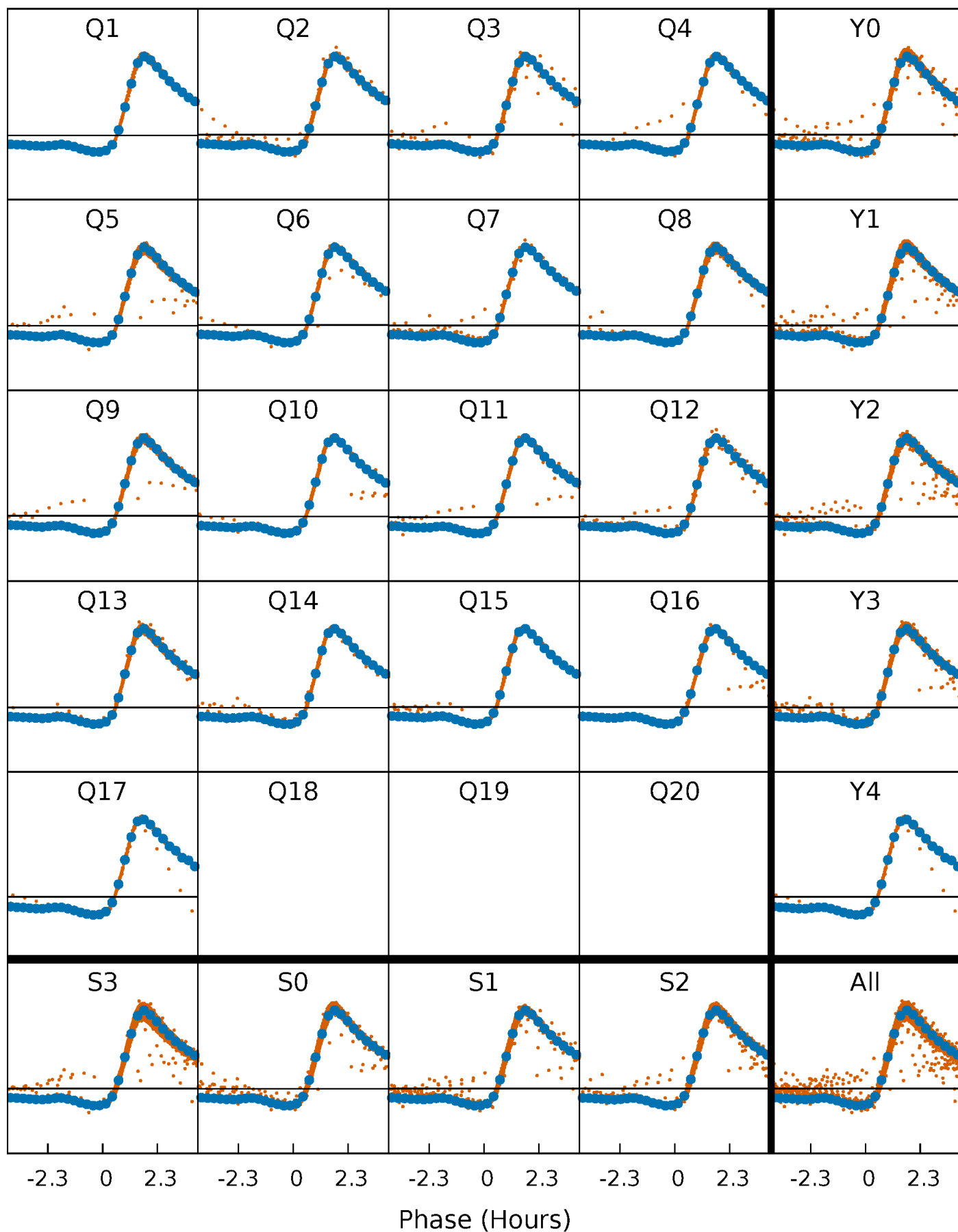
PDC Quarter-Phased Transit Curves

TCE 008344381-01 P= 0.576829 Days $T_0=131.854944$ (BKJD)



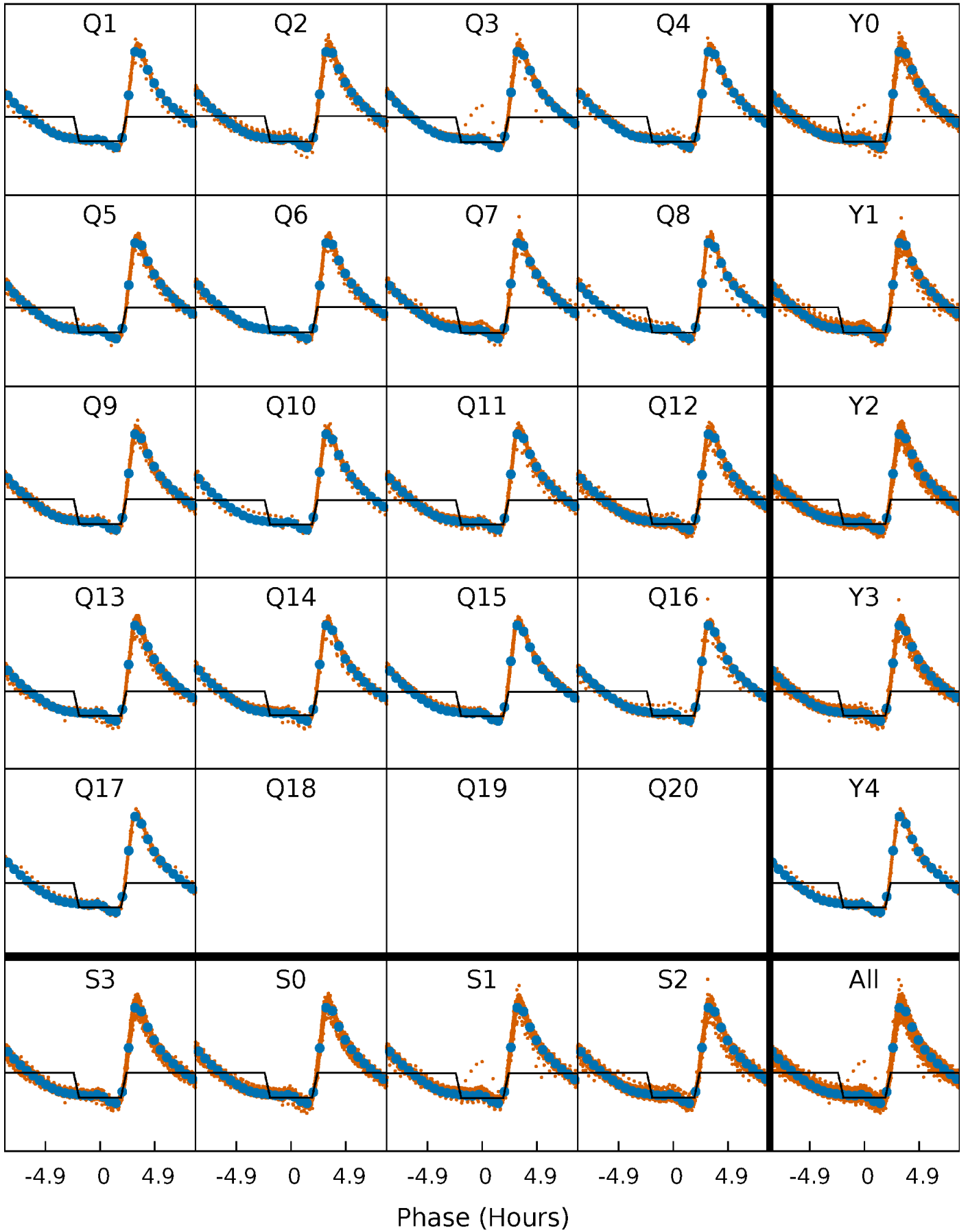
DV Quarter-Phased Transit Curves

TCE 008344381-01 P= 0.576829 Days $T_0=131.854944$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

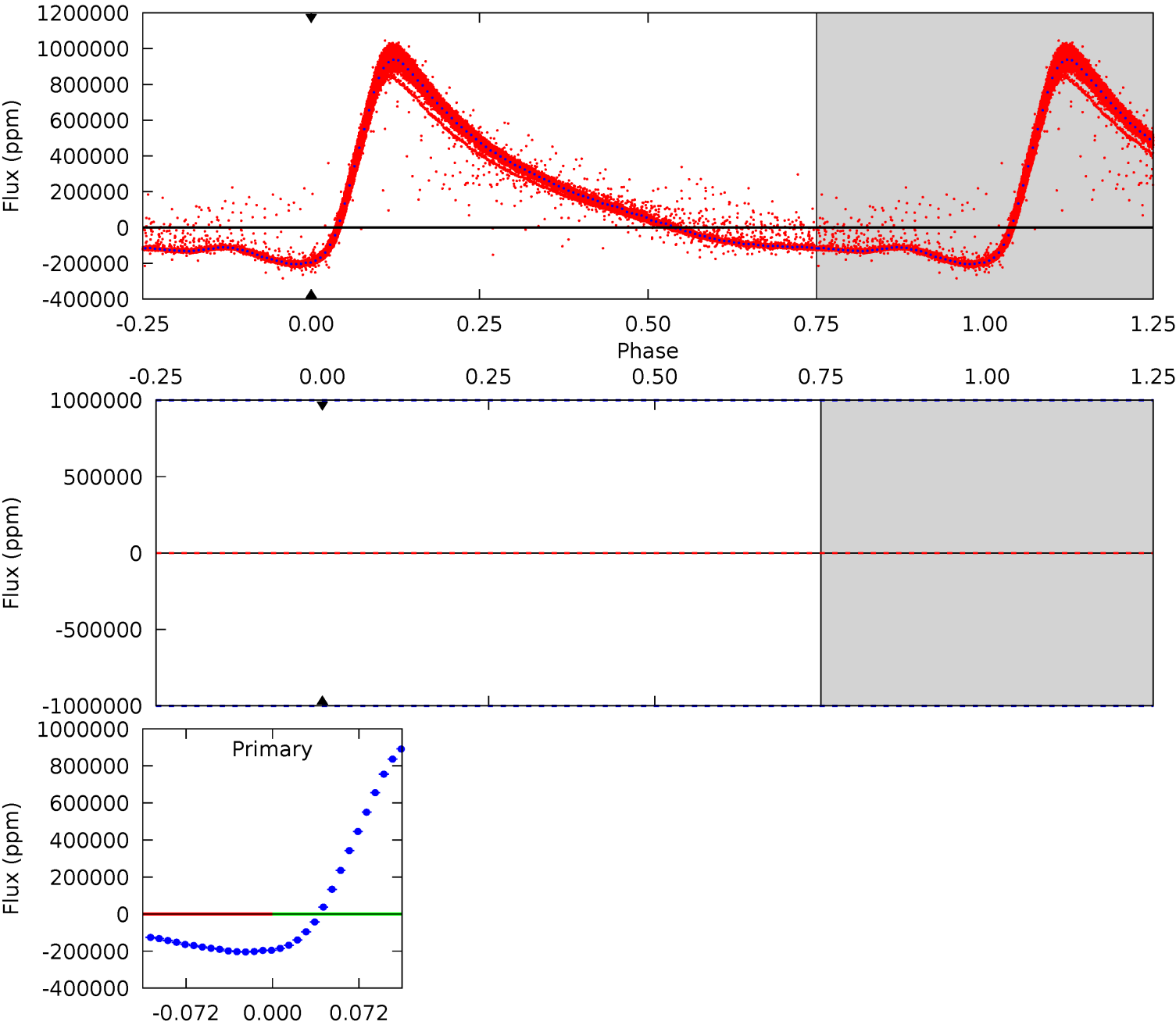
TCE 008344381-01 P= 0.576829 Days $T_0=131.789075$ (BKJD)



DV Model-Shift Uniqueness Test

008344381-01, P = 0.576829 Days, E = 131.278115 Days

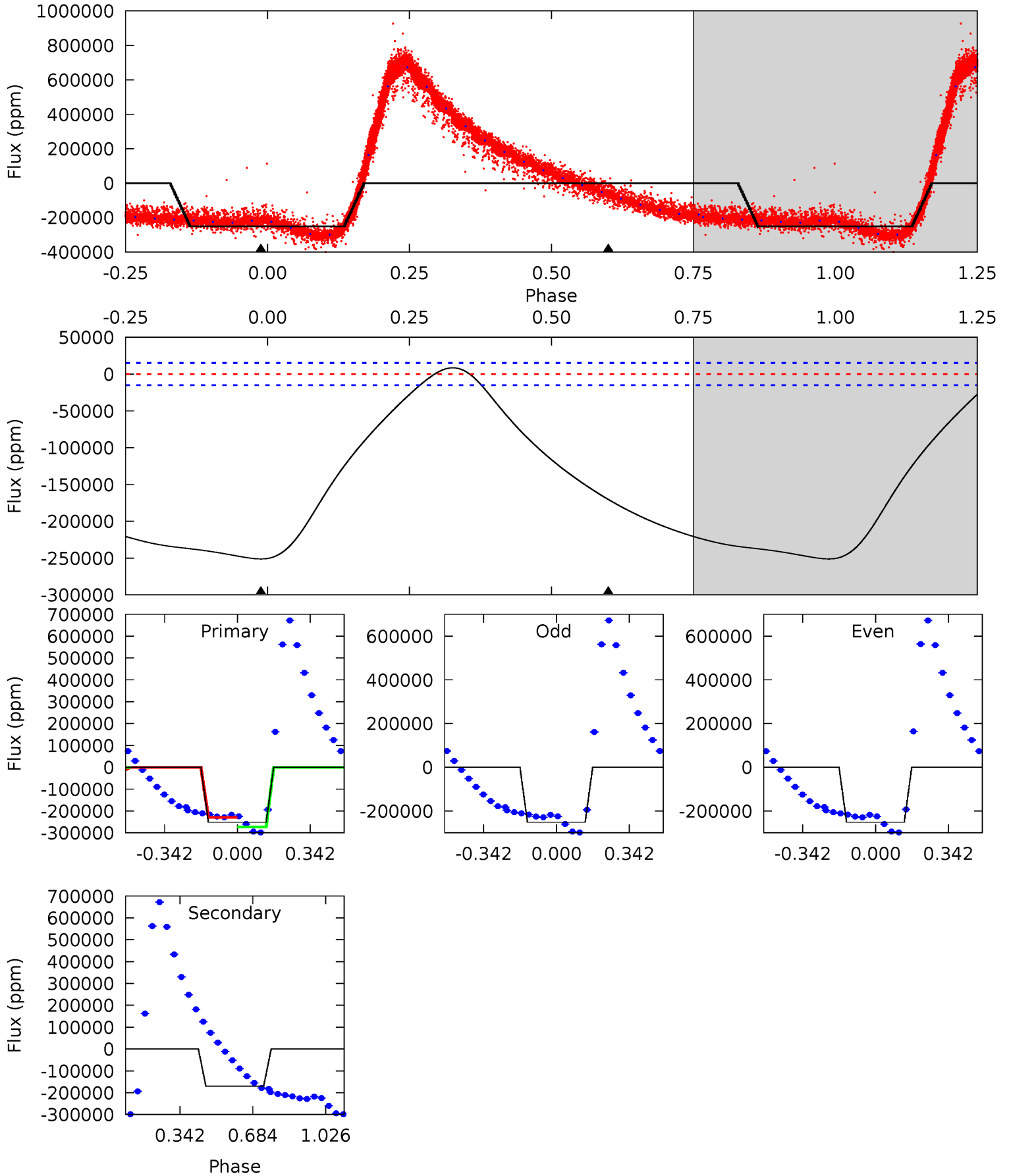
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008344381-01, P = 0.576829 Days, E = 131.212246 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
71.6	48.5	0	0	4.30	0.95	3.65	71.6	71.6	48.5	48.5	0.02	1.00	0.03	6.64



Stellar Parameters For KIC 008344381

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	8233^{+198}_{-368}	$4.076^{+0.192}_{-0.144}$	$-0.200^{+0.200}_{-0.400}$	$2.014^{+0.431}_{-0.527}$	$1.761^{+0.134}_{-0.314}$	$0.304^{+0.318}_{-0.114}$
	+2%/-4%	+5%/-4%	+100%/-200%	+21%/-26%	+8%/-18%	+105%/-38%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008344381-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$29.84^{+21.46}_{-17.09}$	5568^{+362}_{-426}	-4430^{+24794}_{-12889}	$0.083^{+28.873}_{-19.636}$
Alt.	-170192 ± 3509	$108.57^{+26.55}_{-25.08}$	5604^{+364}_{-452}	7390^{+1206}_{-810}	$2.557^{+1.706}_{-0.917}$

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

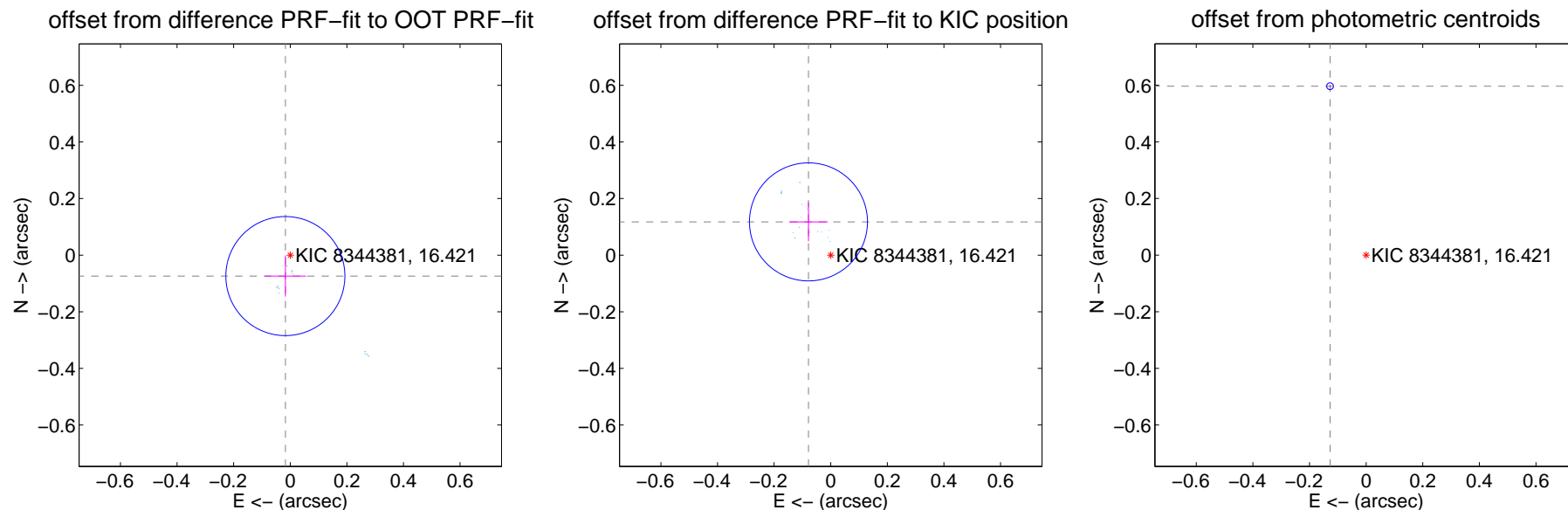
DV Centroid Data

Supplemental centroid analysis for 008344381-01. Kepler magnitude: 16.42. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

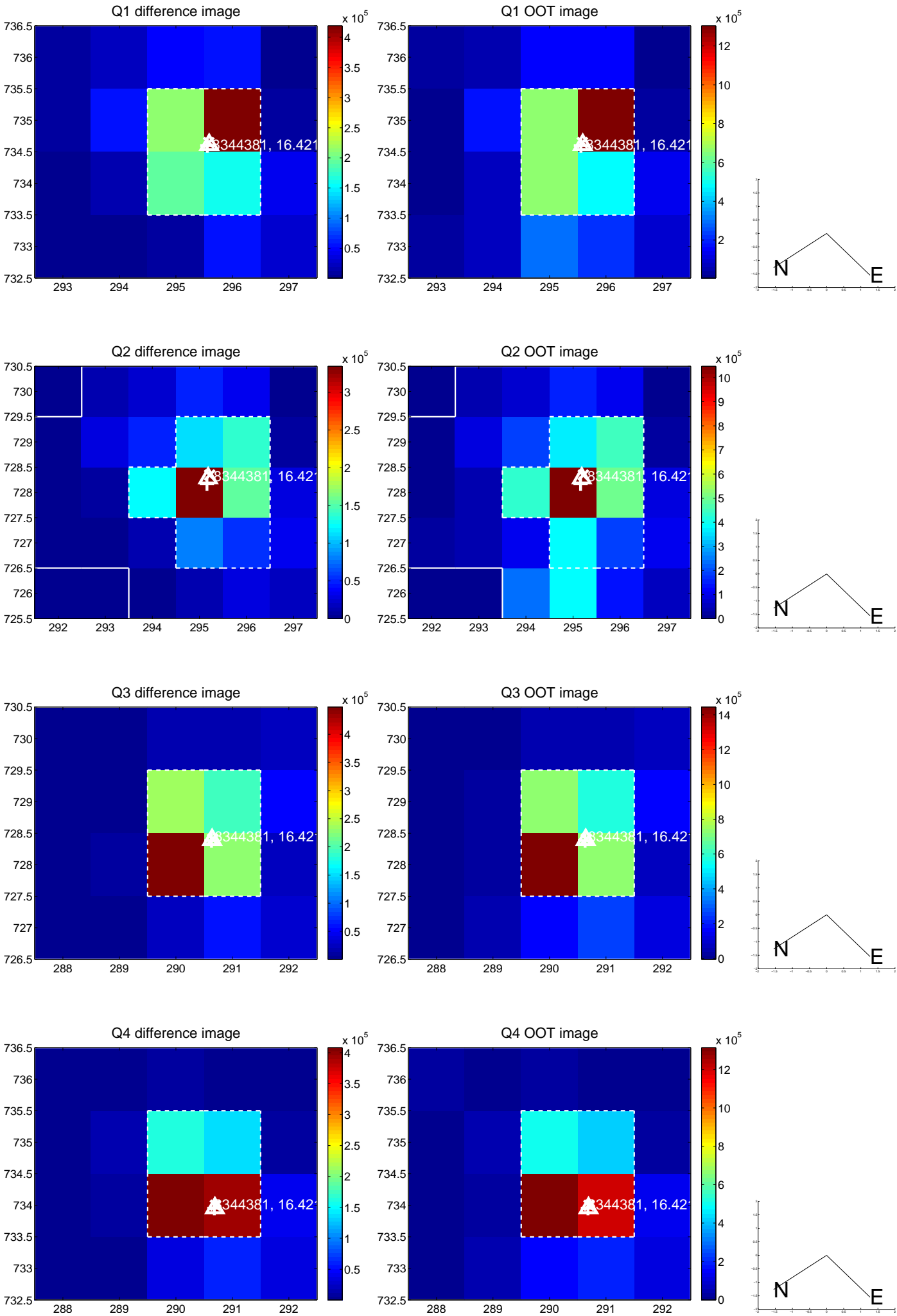
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.076 ± 0.070	1.08	0.017 ± 0.073	-0.074 ± 0.073
PRF-fit source offset from KIC position	0.141 ± 0.070	2.03	0.079 ± 0.068	0.118 ± 0.069
photometric centroid source offset	0.61 ± 0.00	152.73	0.13 ± 0.00	0.60 ± 0.00

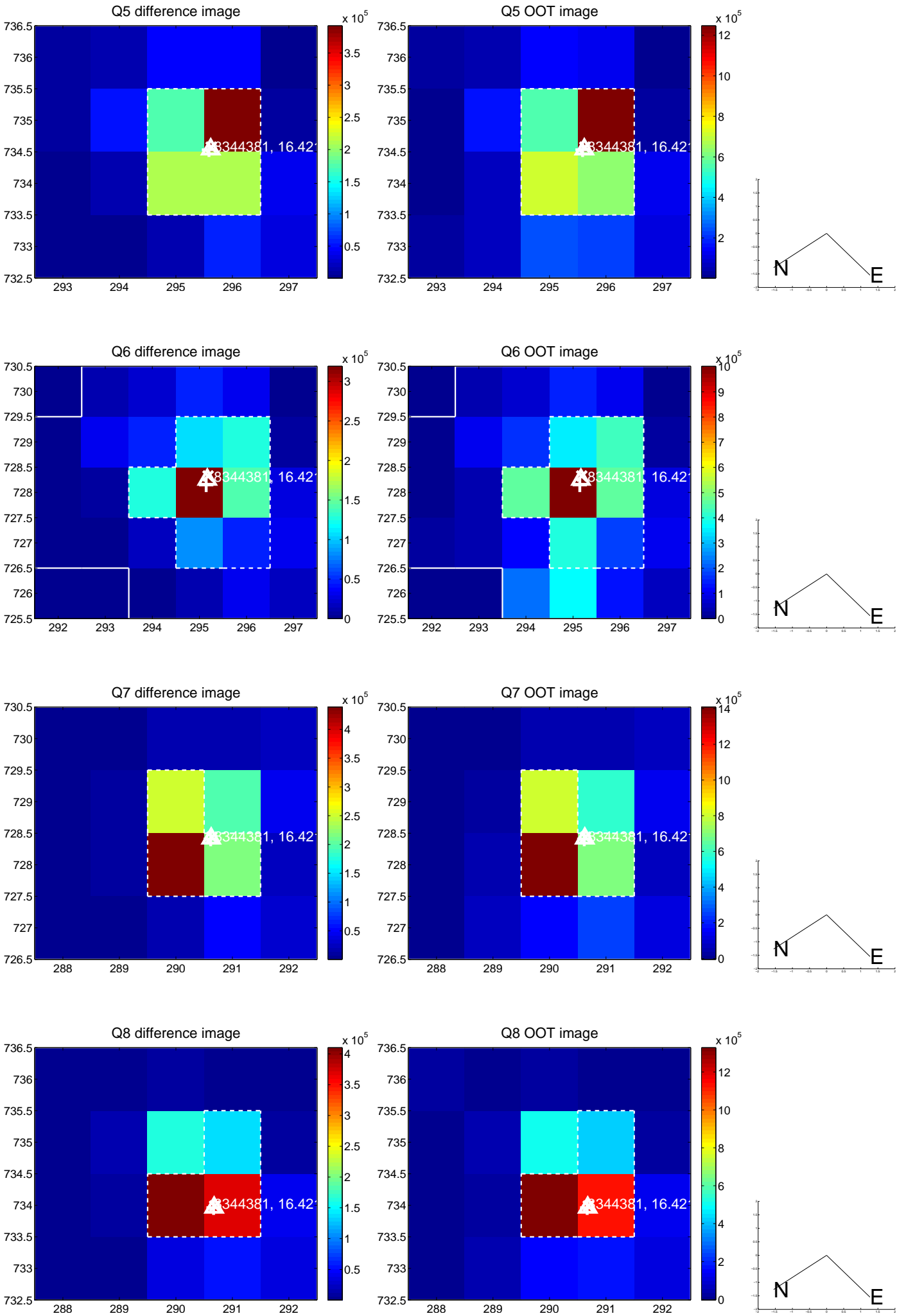


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

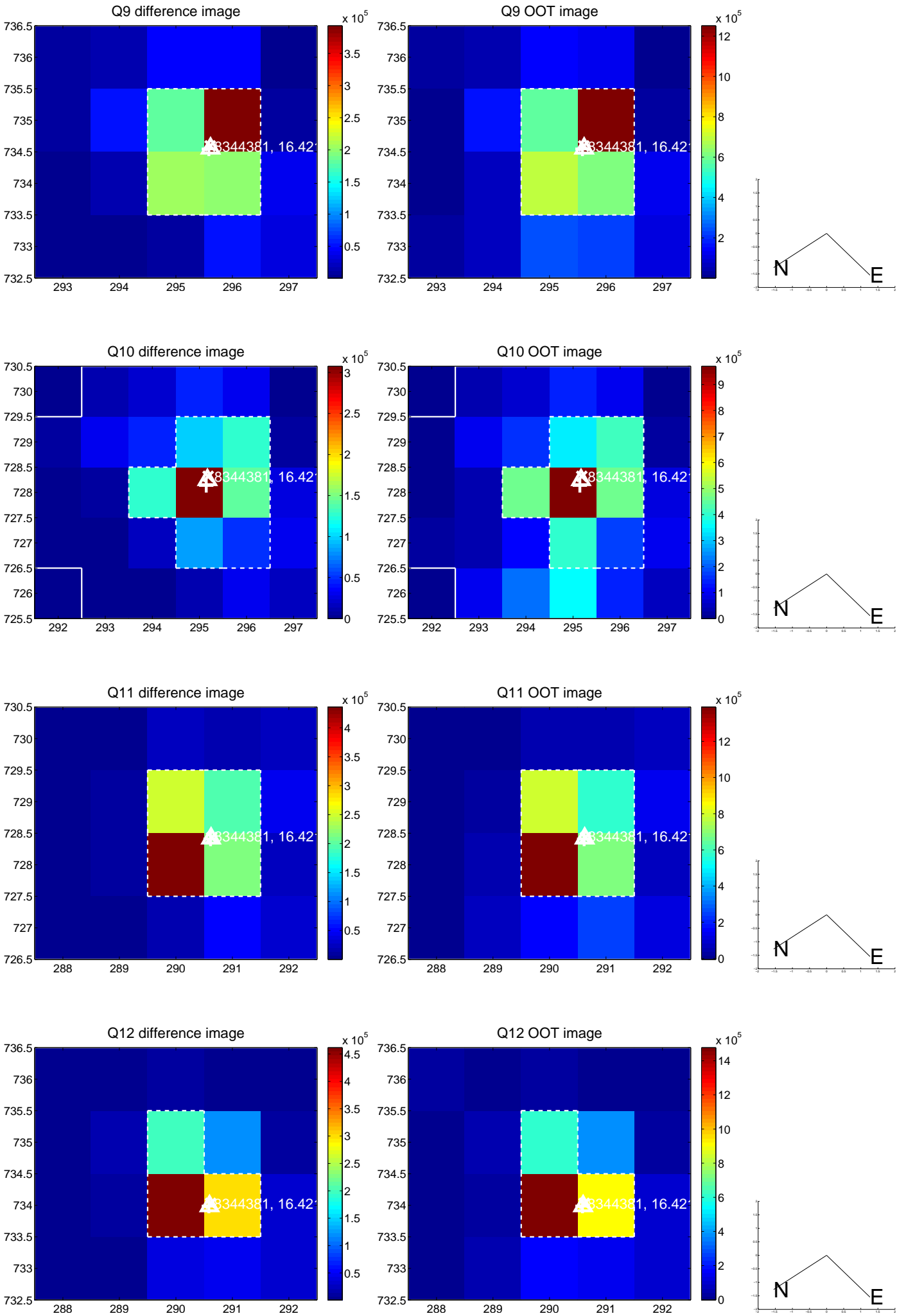
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



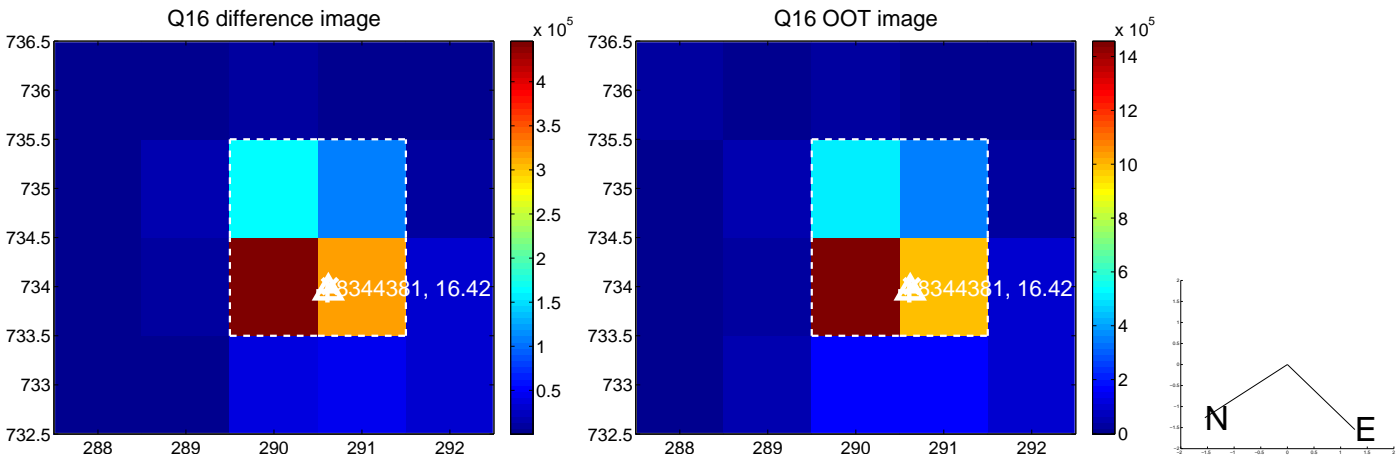
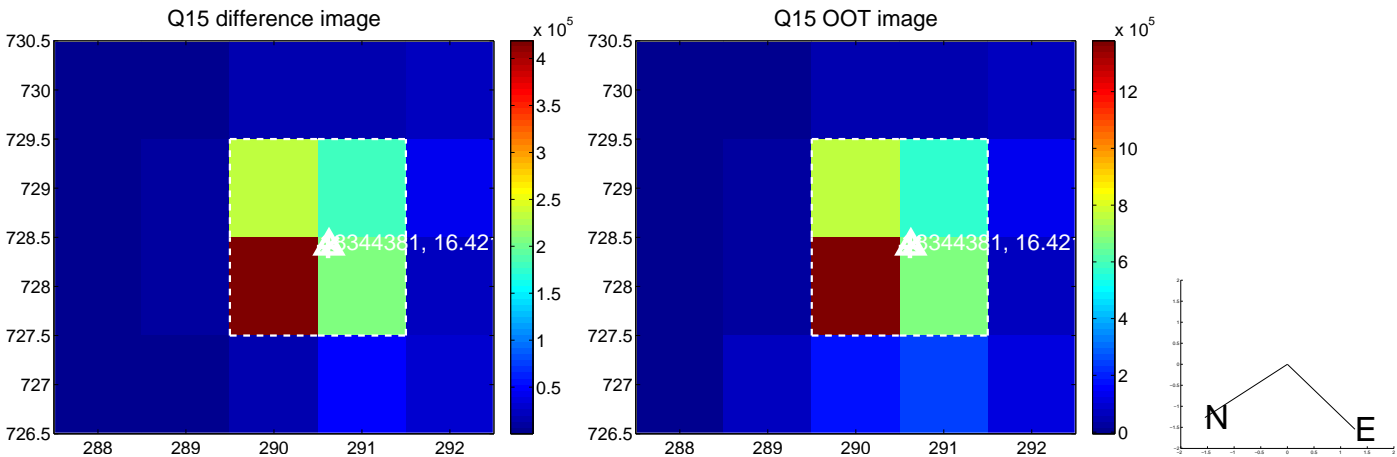
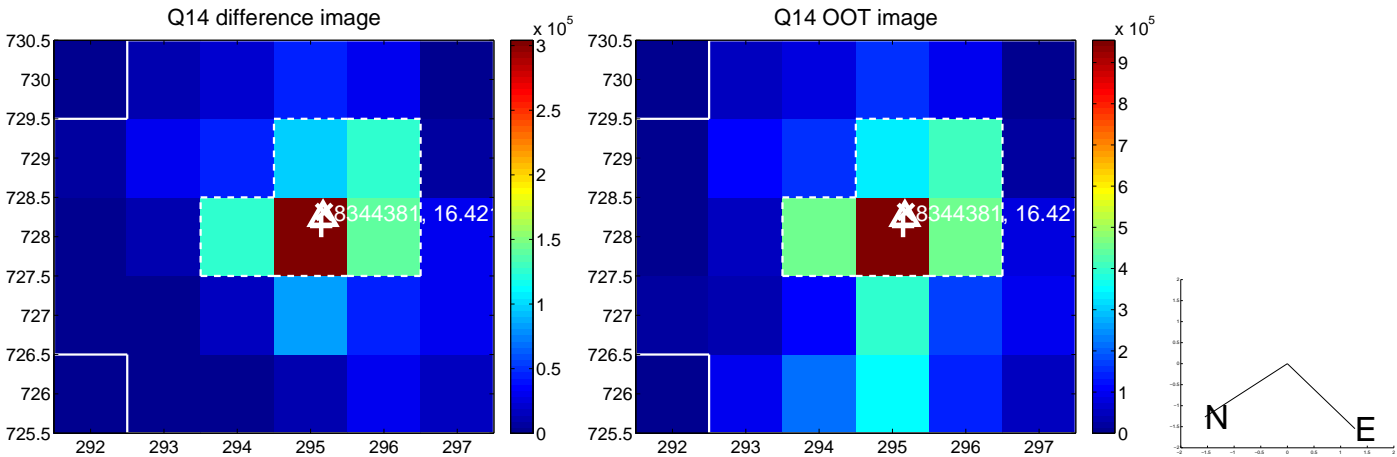
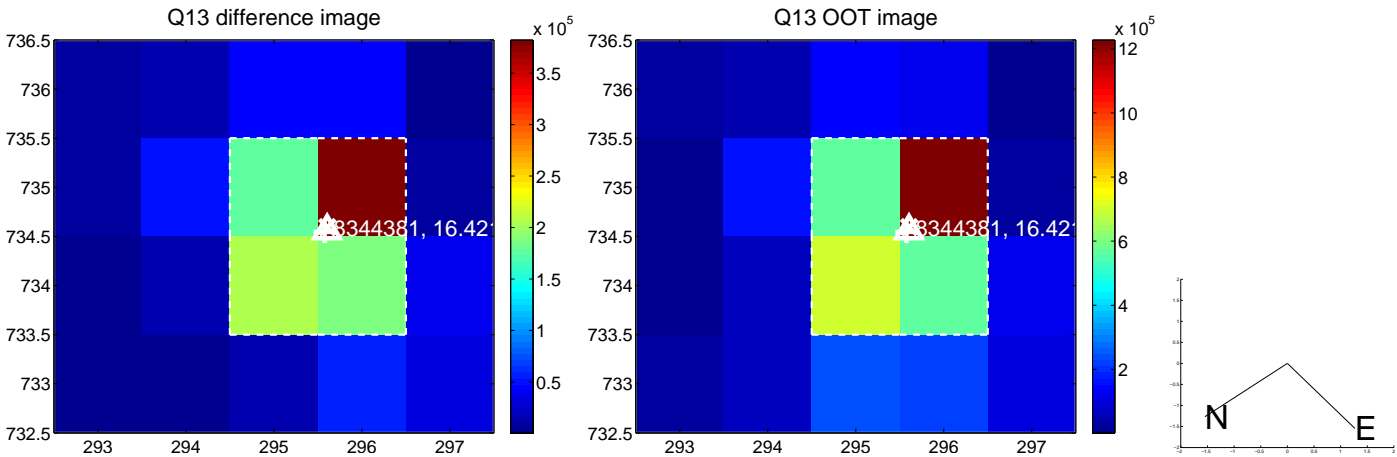
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



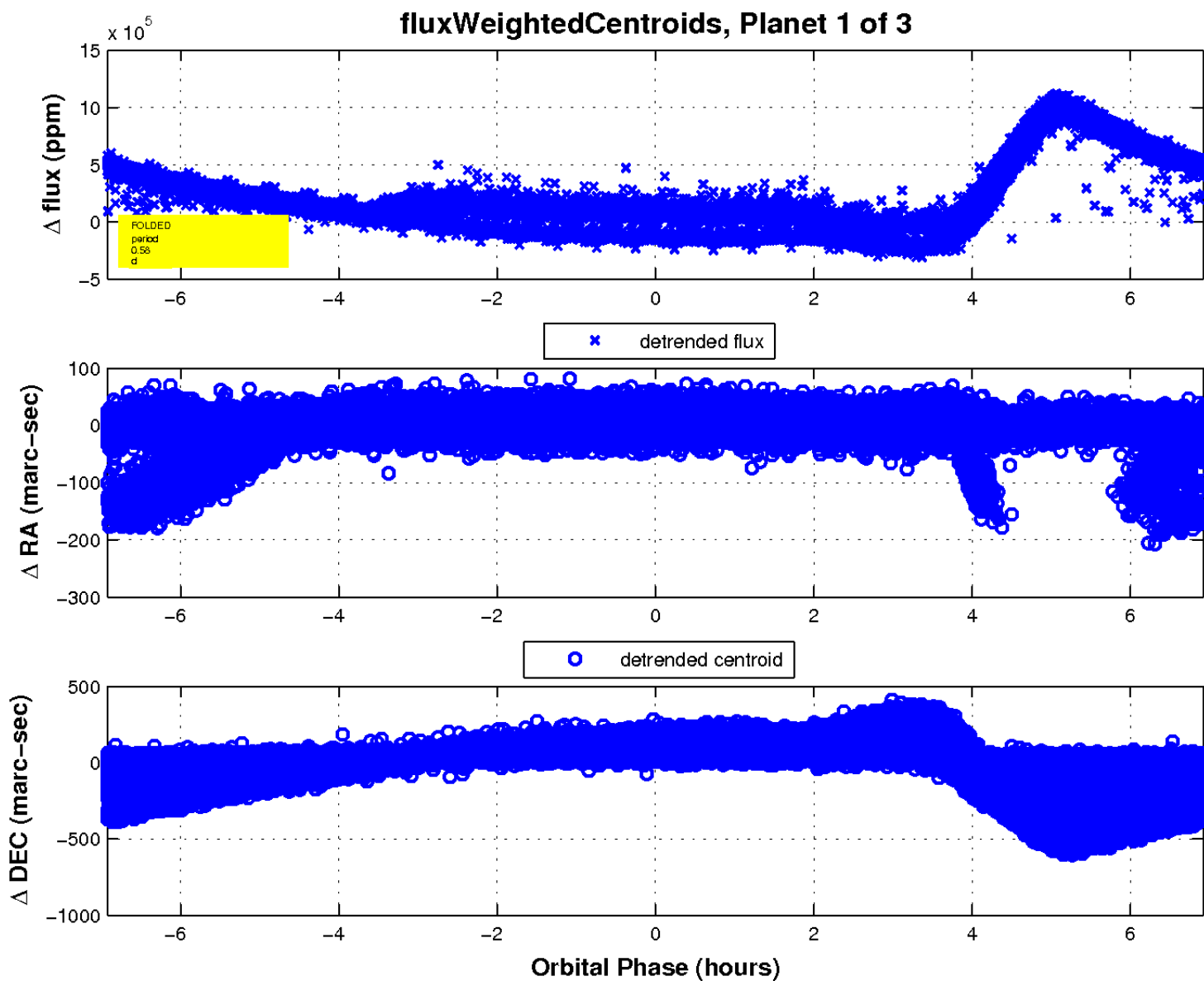
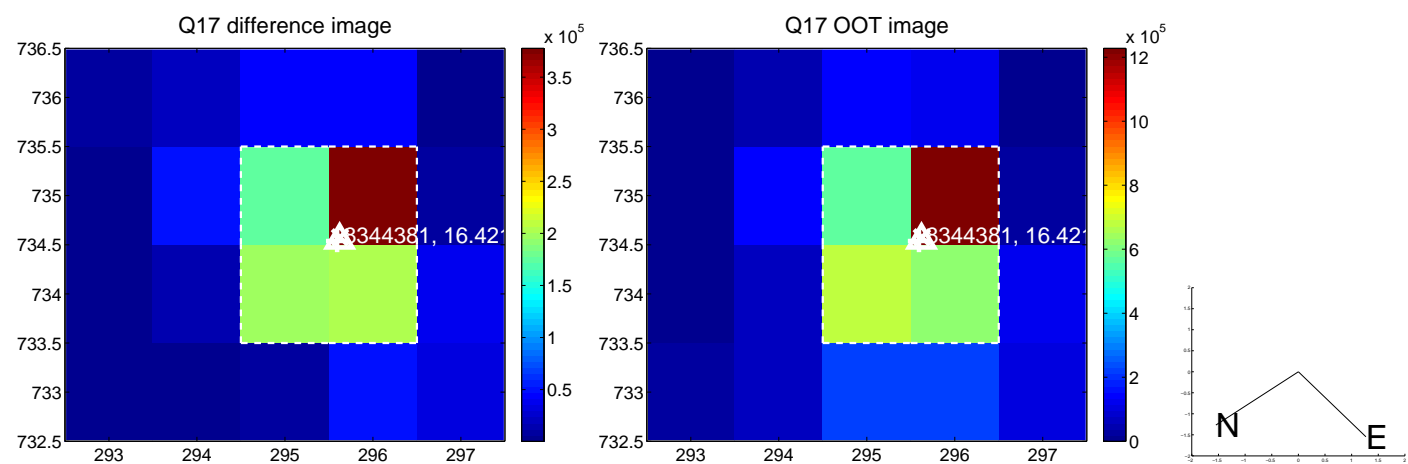
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

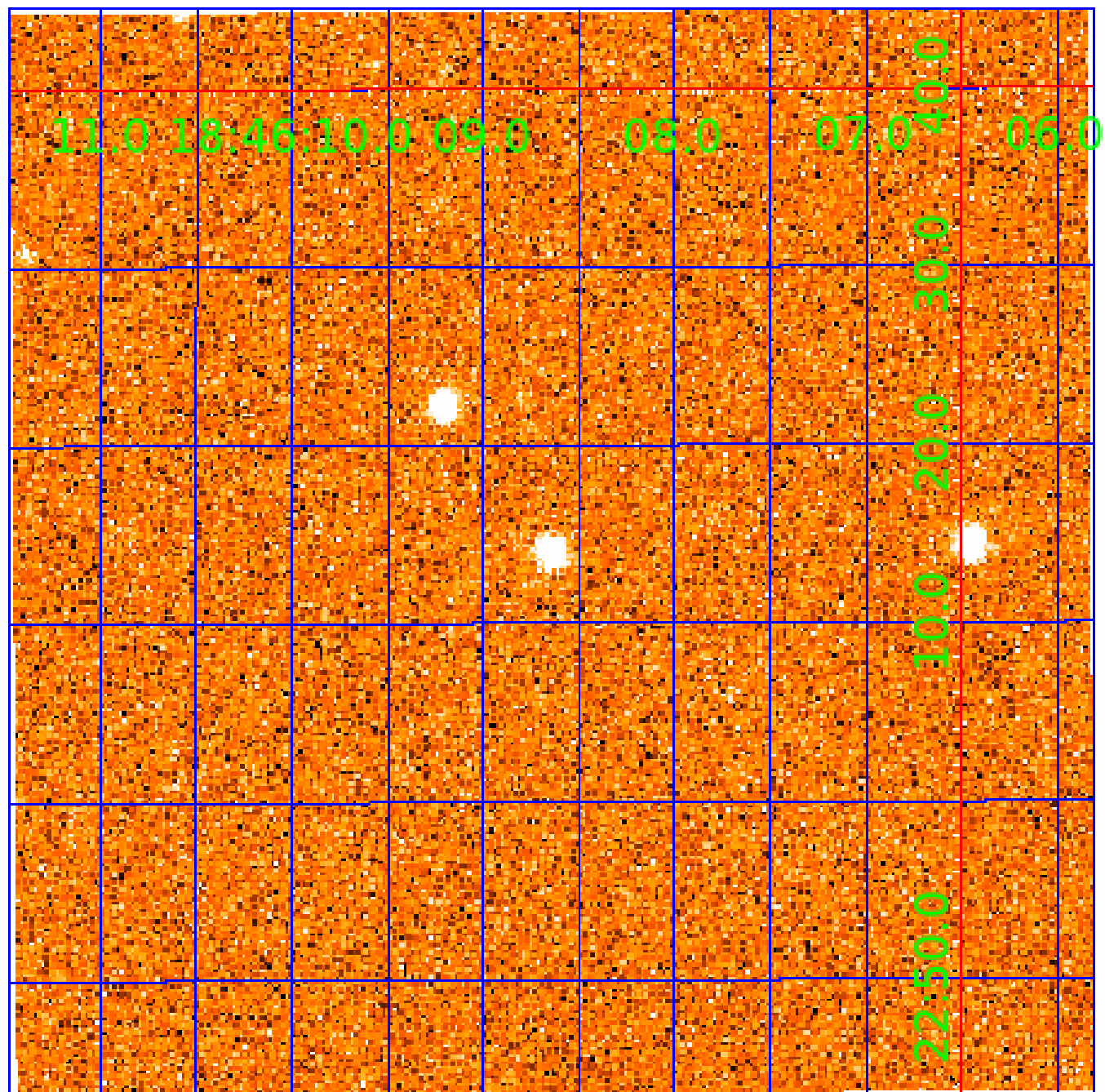


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008344381

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})
008344381-01	OBS	No	0.576829	131.854944	18169.0	2.000	374.4	-1.0	2.01	8233	27.52	62197.18
008344381-02	OBS	No	1.730457	131.575700	4352.4	6.000	20.4	-1.0	2.01	8233	13.43	14375.35
008344381-03	OBS	No	1.730506	132.127406	2909.6	5.000	13.1	-1.0	2.01	8233	10.98	14374.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008344381-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_NOFITS
008344381-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_NOFITS
008344381-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

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

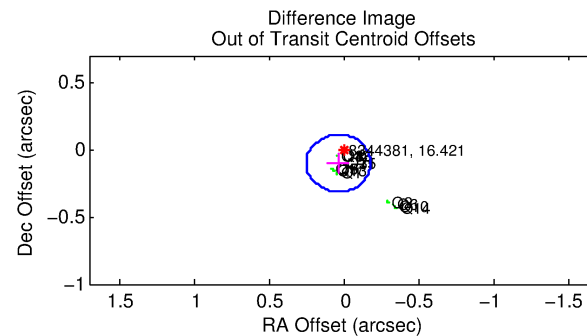
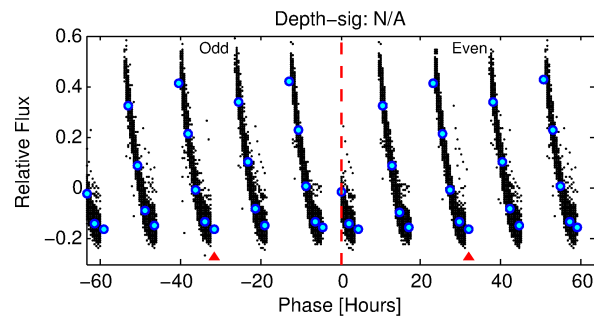
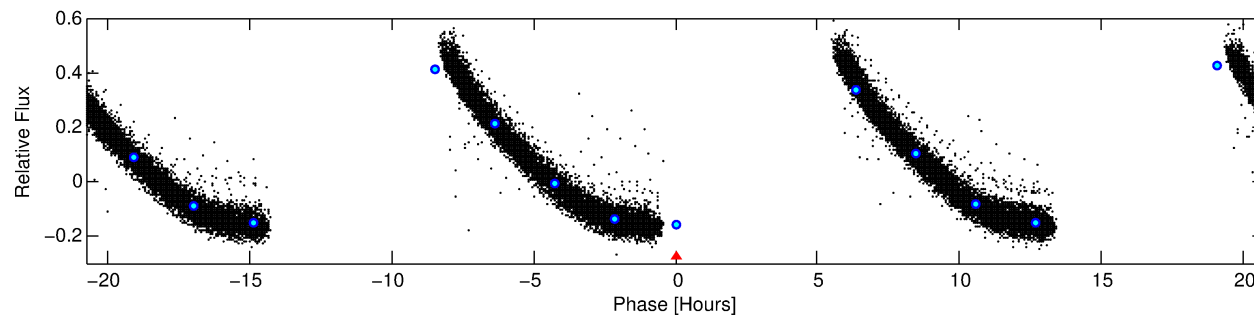
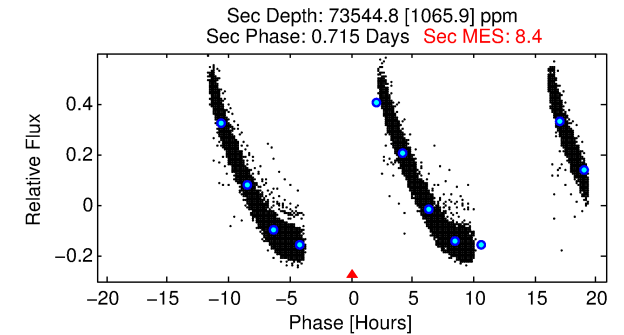
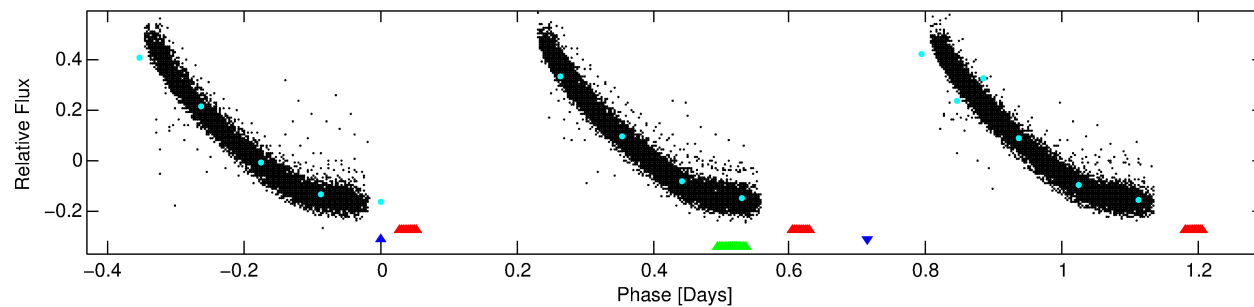
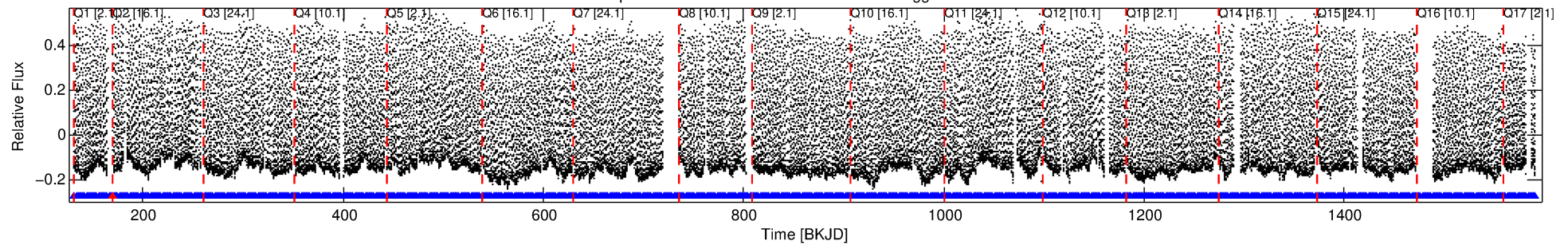
Ephemeris Match Information For 008344381-02

No Significant Match Found

DV One-Page Summary

KIC: 8344381 Candidate: 2 of 3 Period: 1.730 d

Kp: 16.42 R*: 2.01 Rs Teff: 8233.0 K Logg: 4.08 Fe/H: -0.200



TPS TCE Results:

Period = 1.73046 d
Epoch = 131.5757 BKJD

DV fit results are unavailable

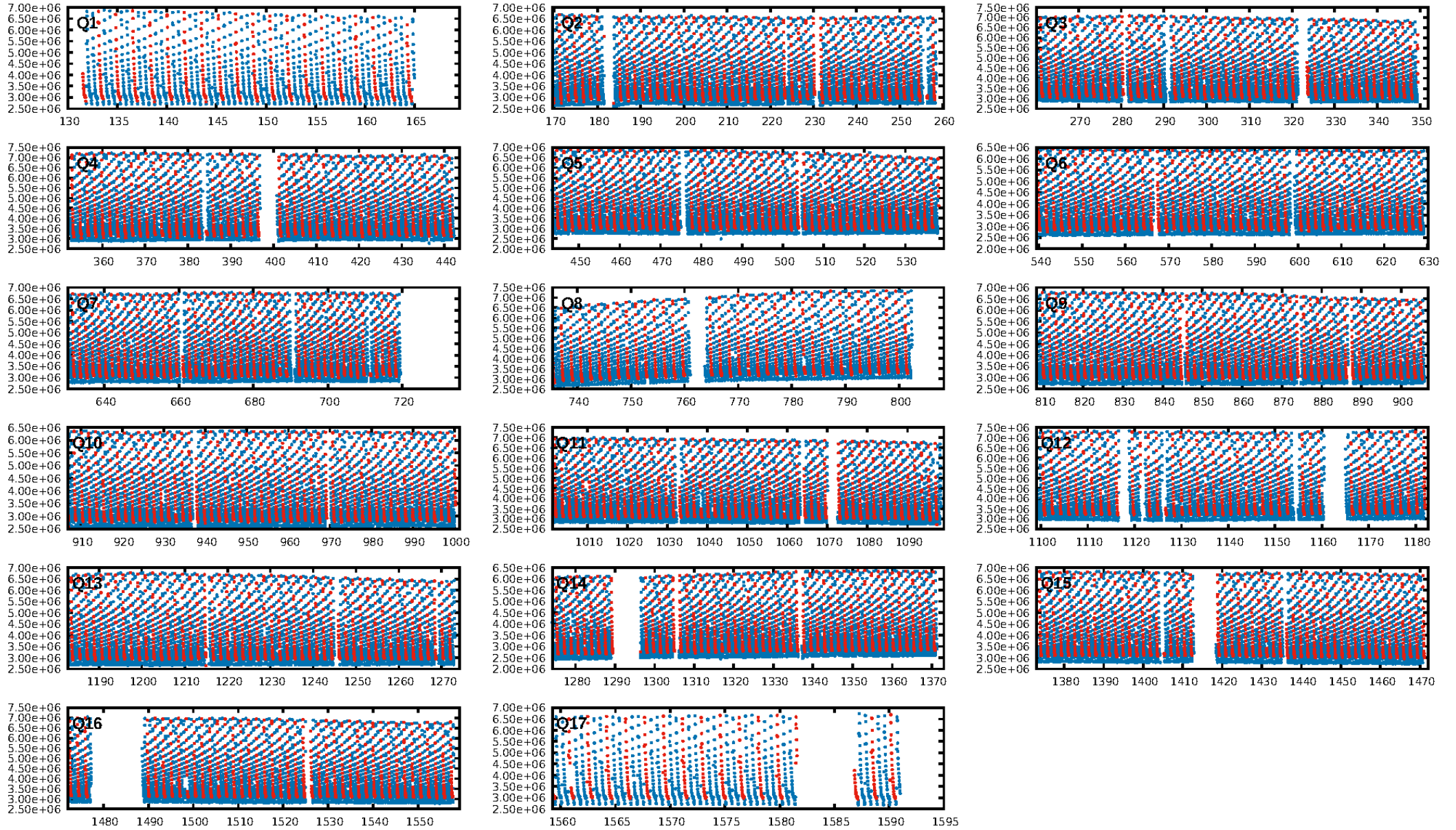
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.38 σ]
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [744/745]
GhostDiagnostic-chr: 1.447
Centroid-sig: N/A
Centroid-so: 0.387 arcsec [44.37 σ]
OotOffset-rm: 0.107 arcsec [1.50 σ]
KicOffset-rm: 0.140 arcsec [1.99 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
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DiffImageOverlap-fno: 0.00 [0/17]

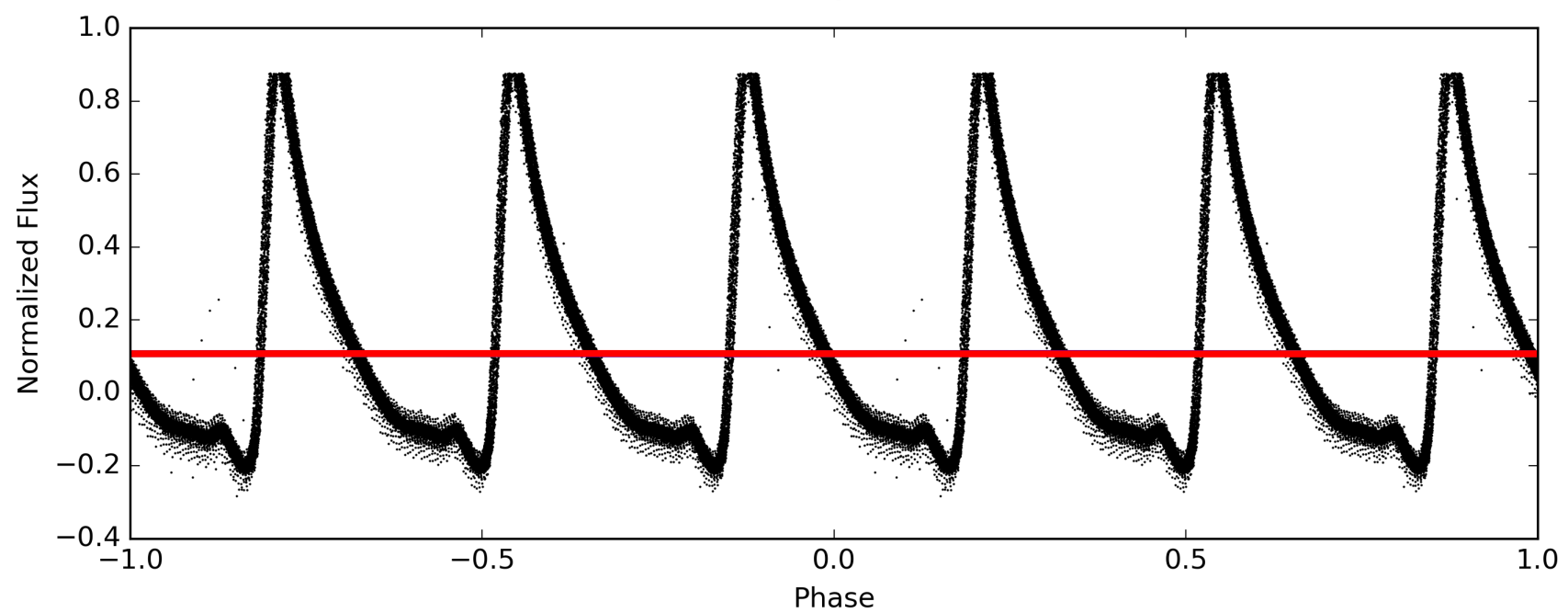
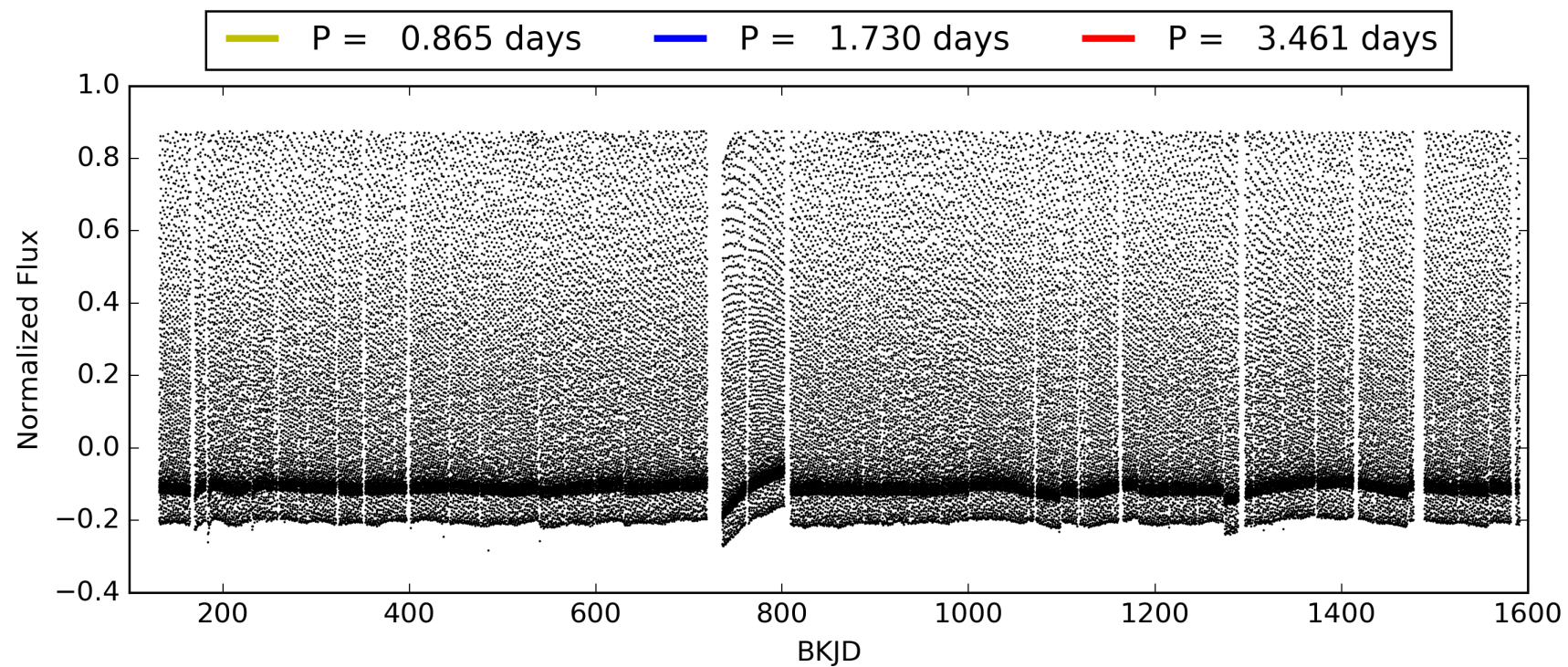
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008344381-02, PDC Light Curves

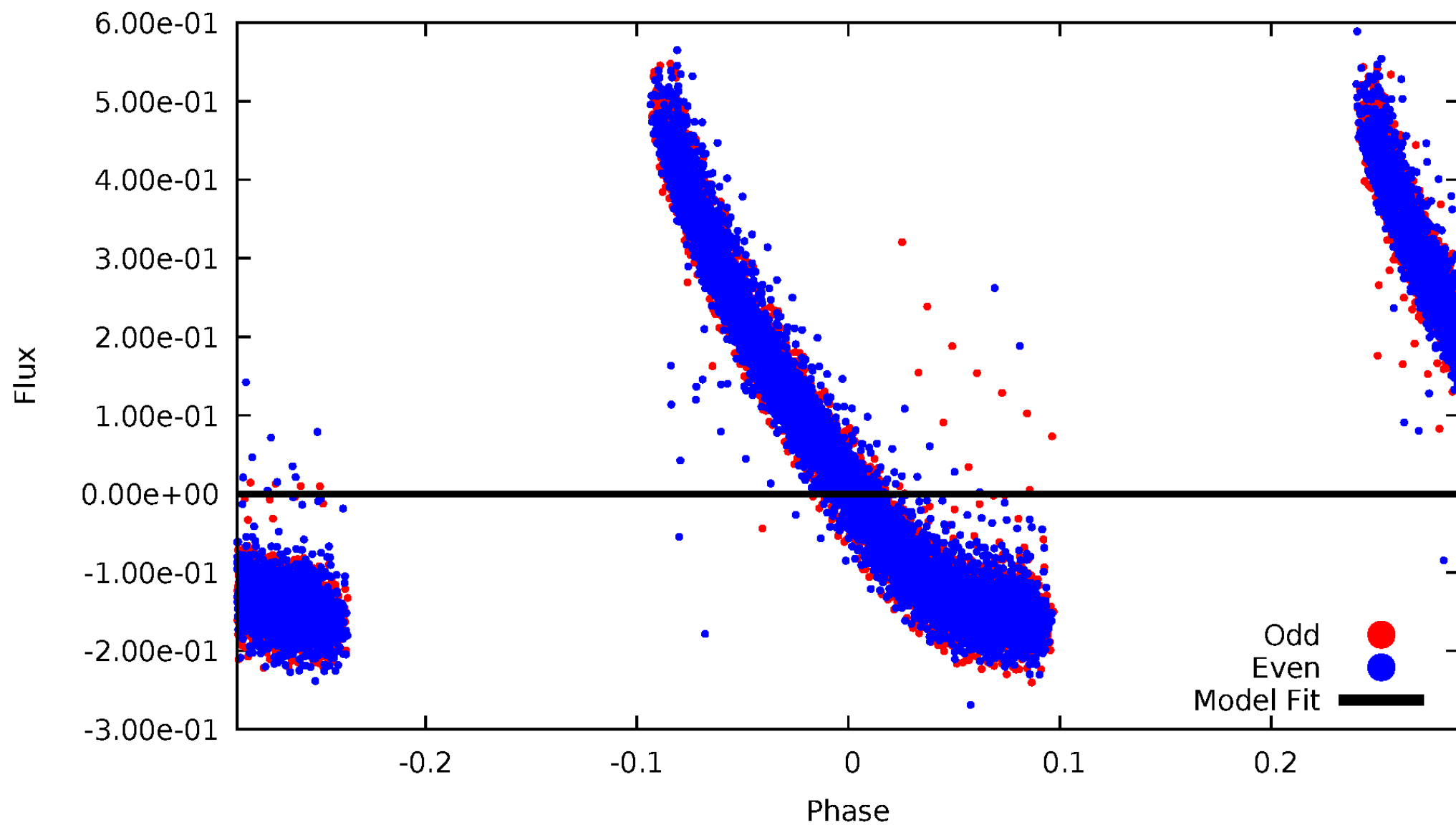


TCE 008344381-02



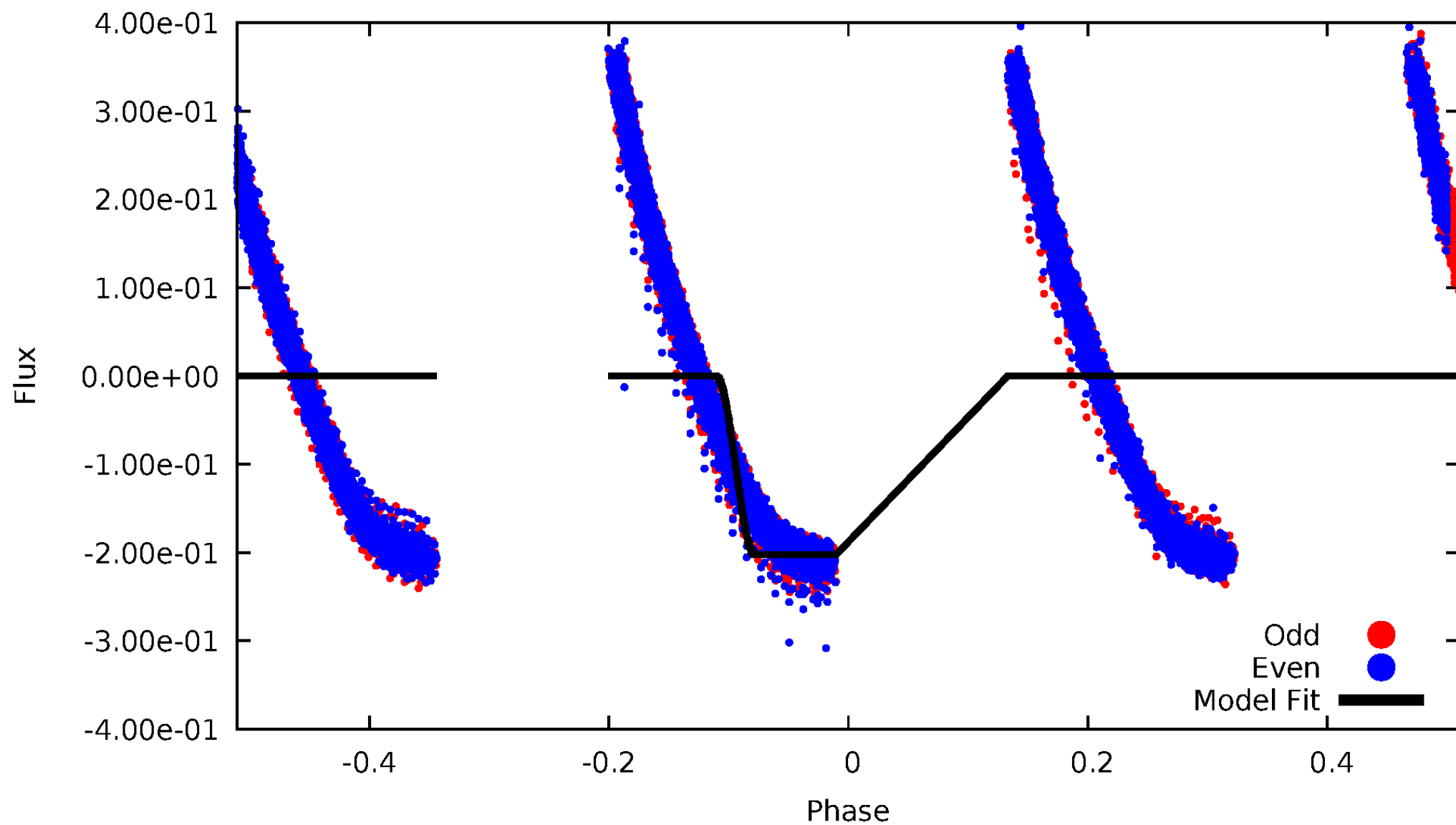
DV Odd/Even

TCE 008344381-02



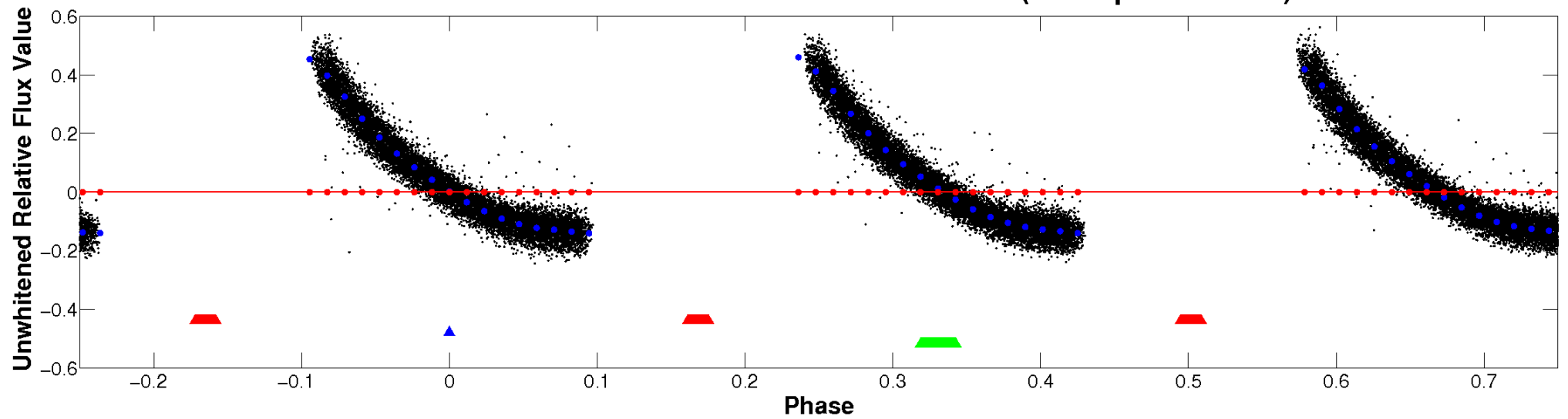
ALT Odd/Even

TCE 008344381-02



Non-Whitened Vs. Whitened Light Curve

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

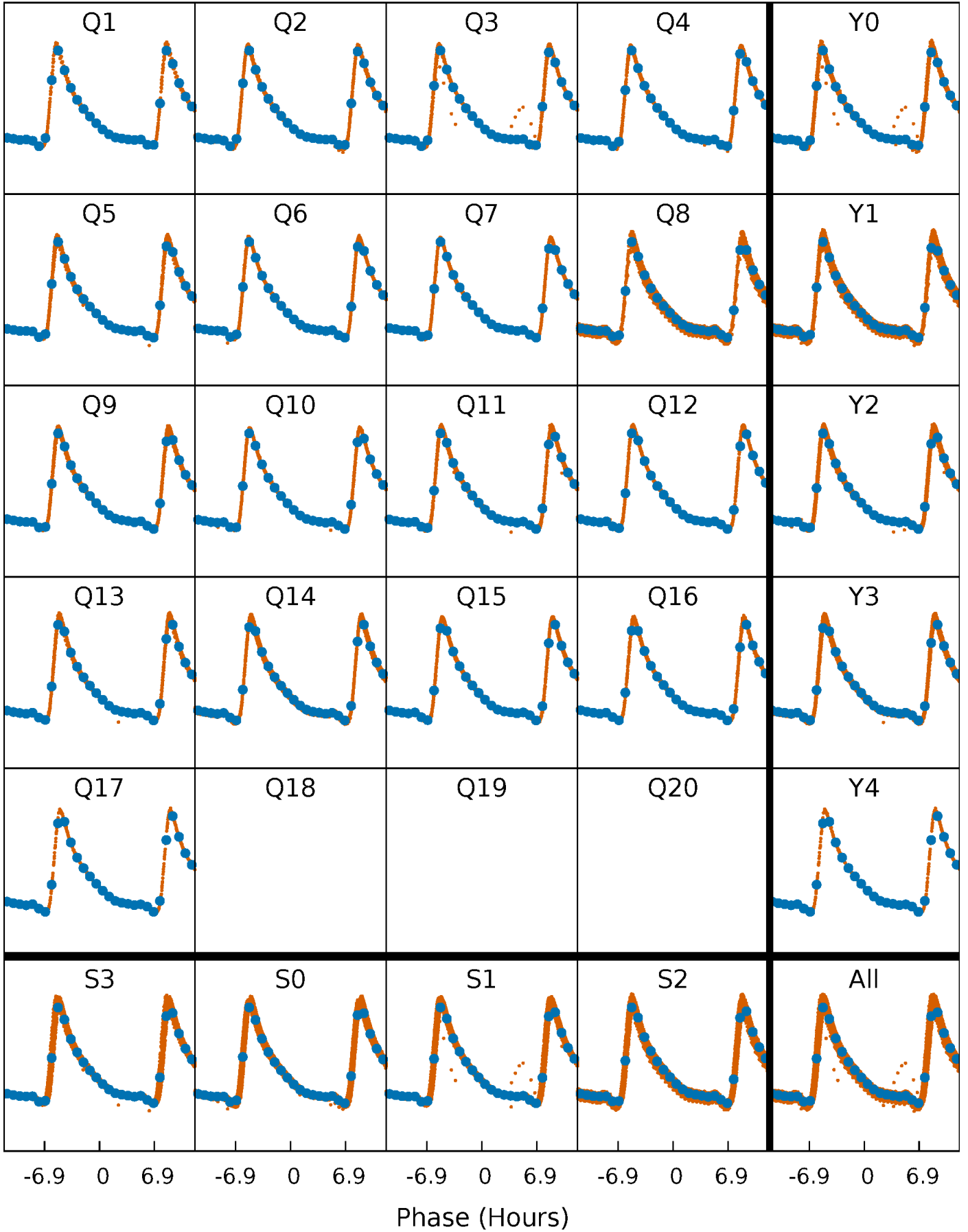


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



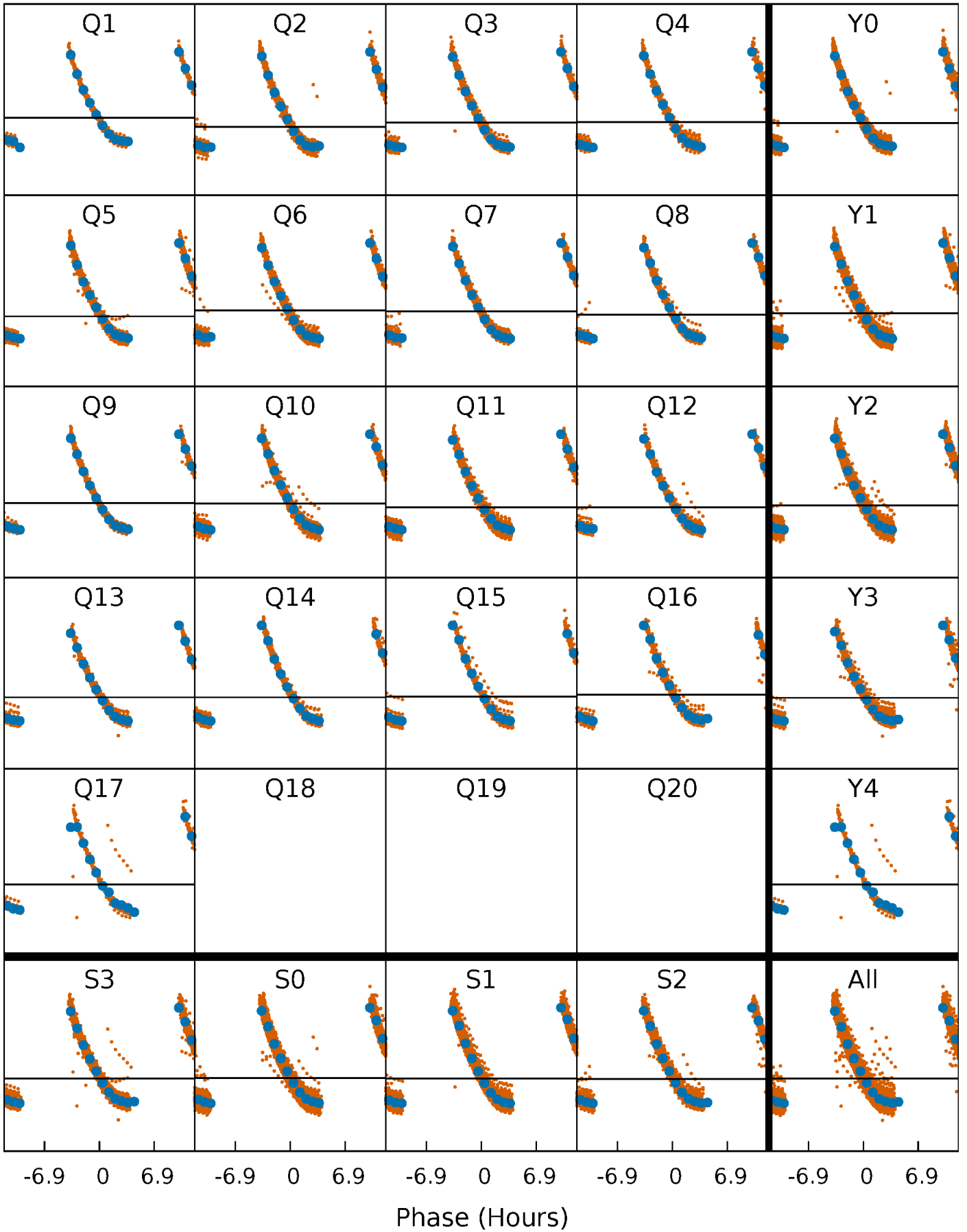
PDC Quarter-Phased Transit Curves

TCE 008344381-02 P= 1.730457 Days $T_0=131.575700$ (BKJD)



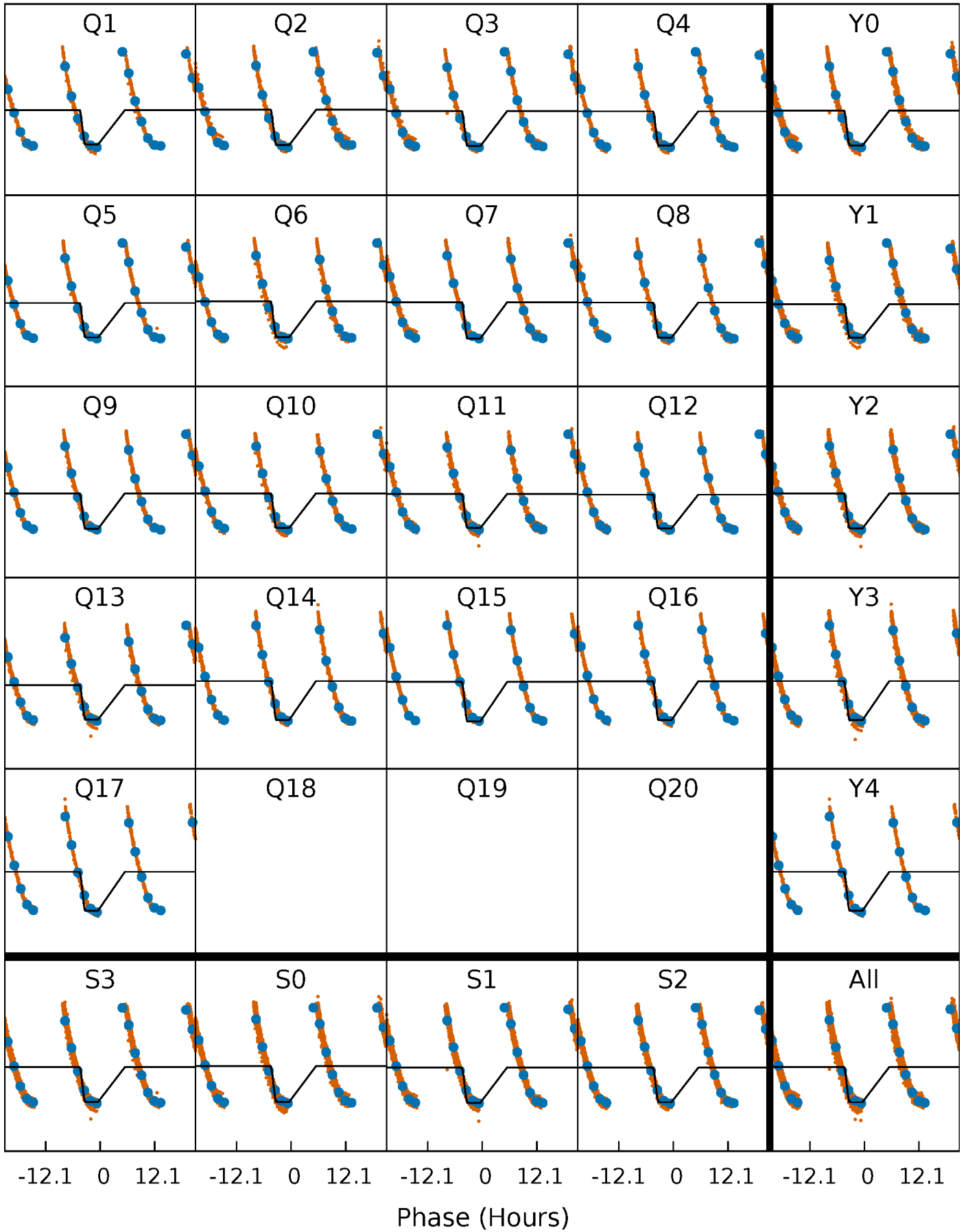
DV Quarter-Phased Transit Curves

TCE 008344381-02 P= 1.730457 Days $T_0=131.575700$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

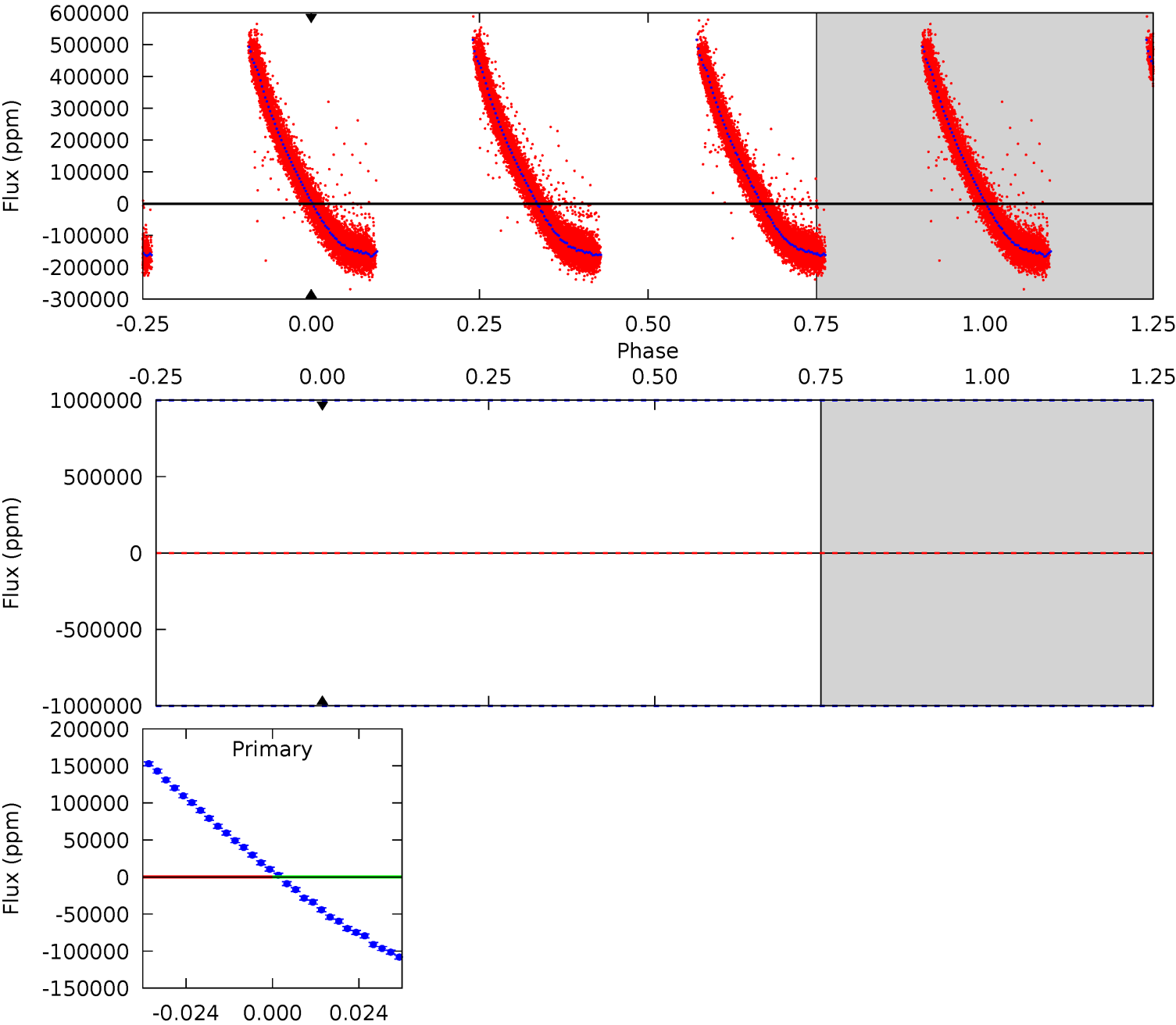
TCE 008344381-02 P= 1.730457 Days $T_0=131.761100$ (BKJD)



DV Model-Shift Uniqueness Test

008344381-02, P = 1.730457 Days, E = 129.845243 Days

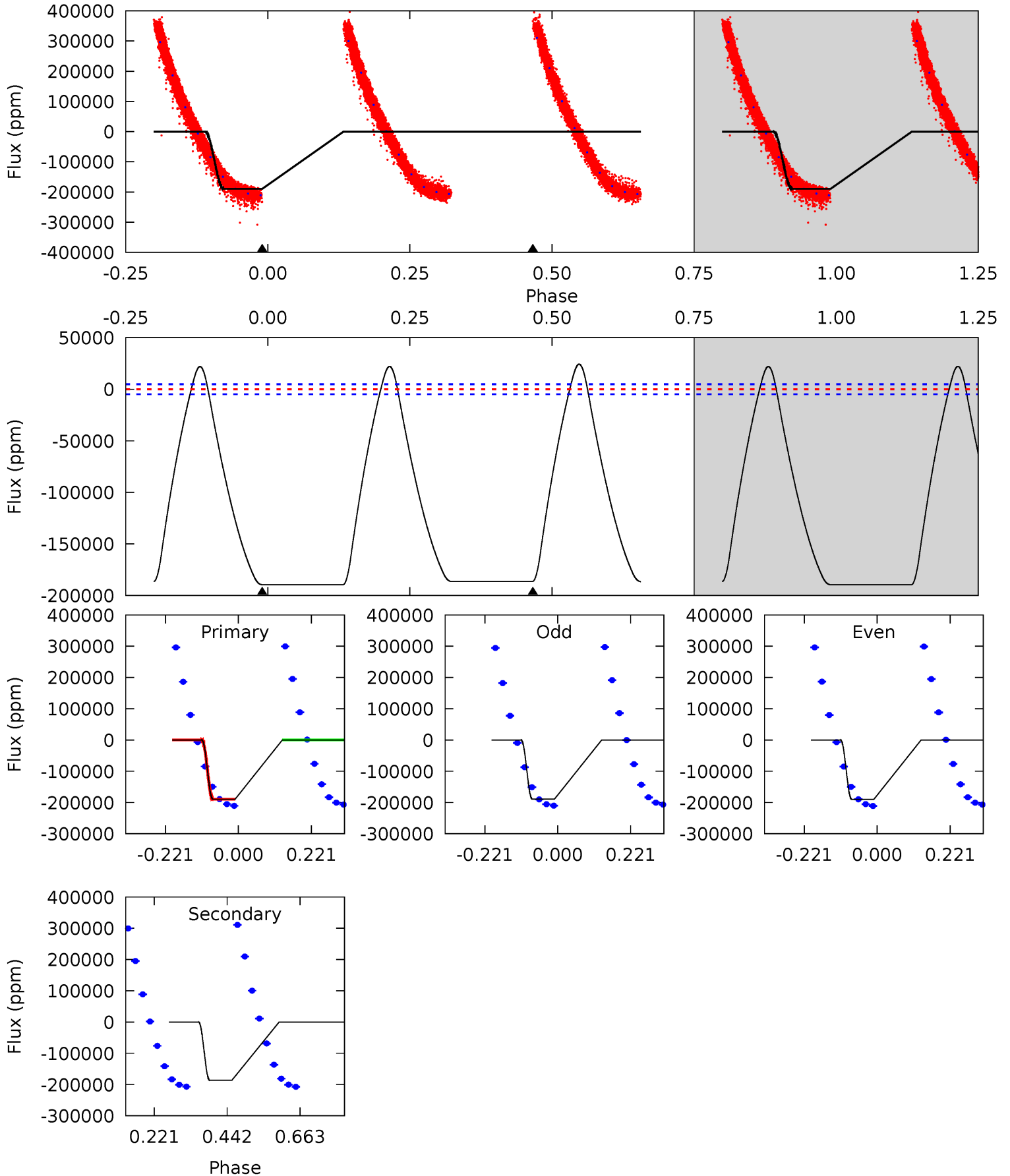
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008344381-02, P = 1.730457 Days, E = 130.030643 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
172.1	169.2	0	0	4.40	1.22	28.8	172.1	172.1	169.2	169.2	0.27	0	0.11	0



Stellar Parameters For KIC 008344381

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8233^{+198}_{-368}	$4.076^{+0.192}_{-0.144}$	$-0.200^{+0.200}_{-0.400}$	$2.014^{+0.431}_{-0.527}$	$1.761^{+0.134}_{-0.314}$	$0.304^{+0.318}_{-0.114}$
	+2%/-4%	+5%/-4%	+100%/-200%	+21%/-26%	+8%/-18%	+105%/-38%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008344381-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$20.75^{+19.91}_{-14.13}$	3864^{+277}_{-303}	4770^{+29448}_{-35980}	$1.690^{+281.751}_{-243.034}$
Alt.	-186320 ± 1101	$96.45^{+25.31}_{-25.12}$	3876^{+232}_{-288}	8475^{+1690}_{-1019}	15^{+13}_{-6}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

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

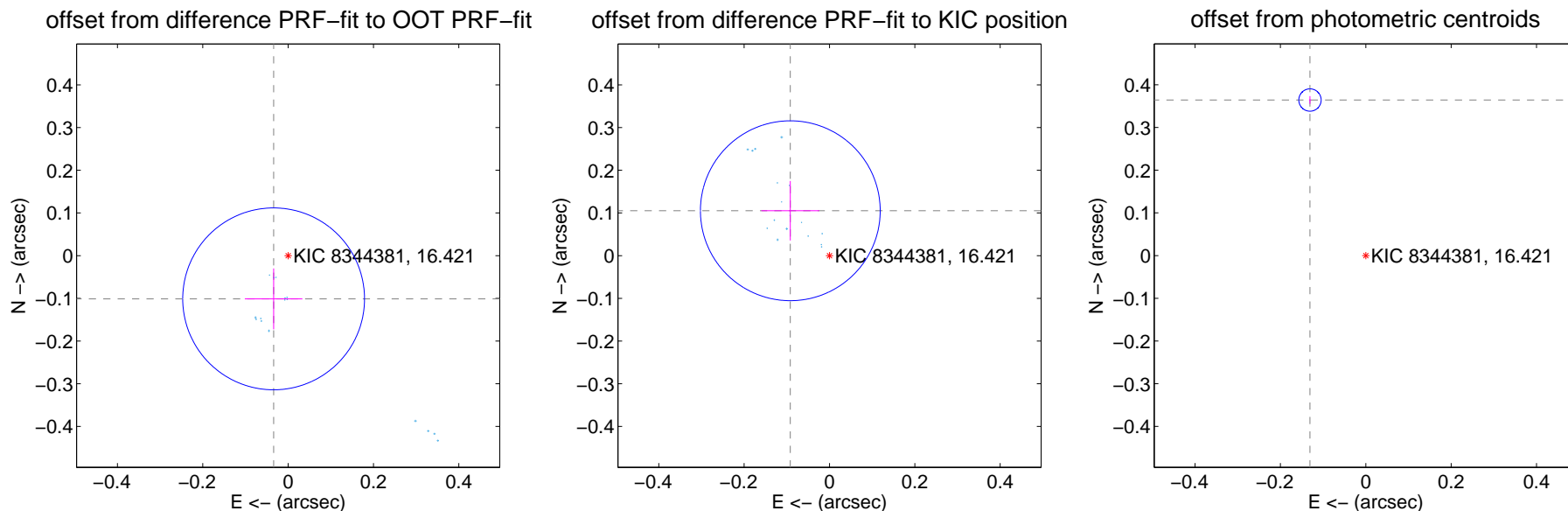
DV Centroid Data

Supplemental centroid analysis for 008344381-02. Kepler magnitude: 16.42. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

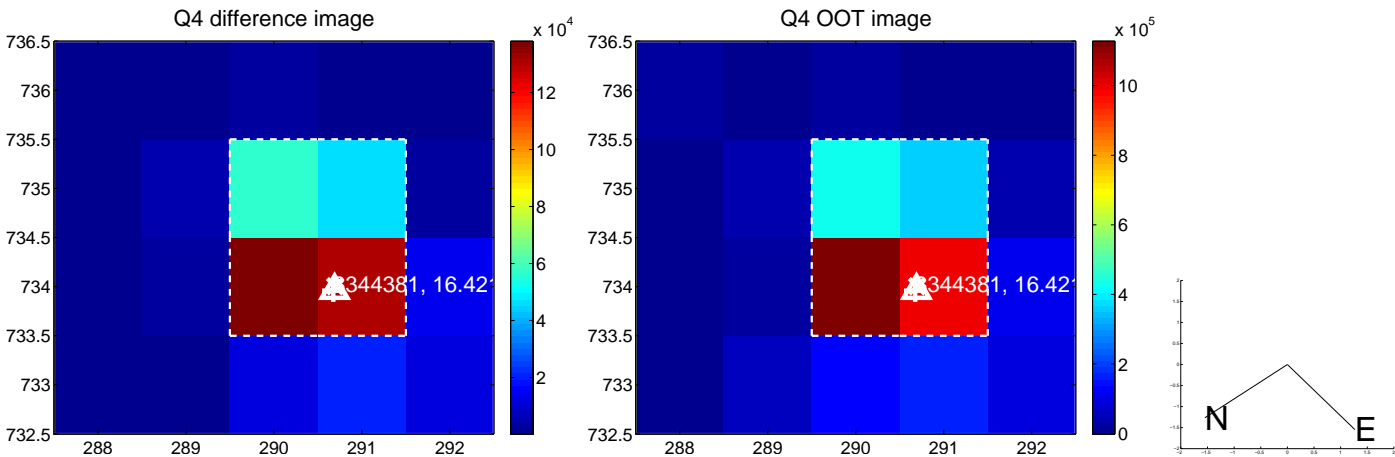
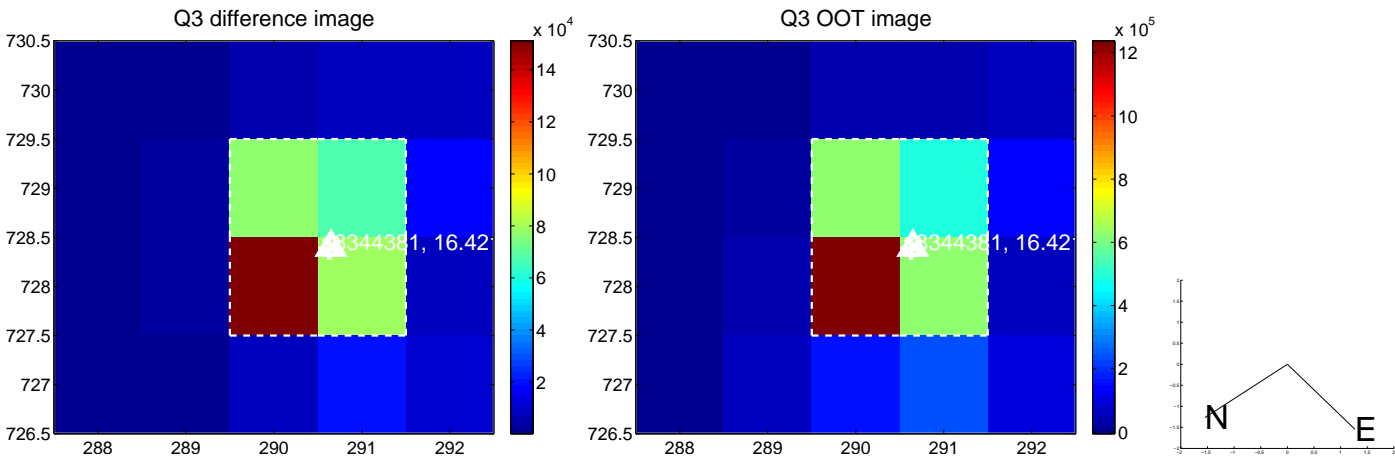
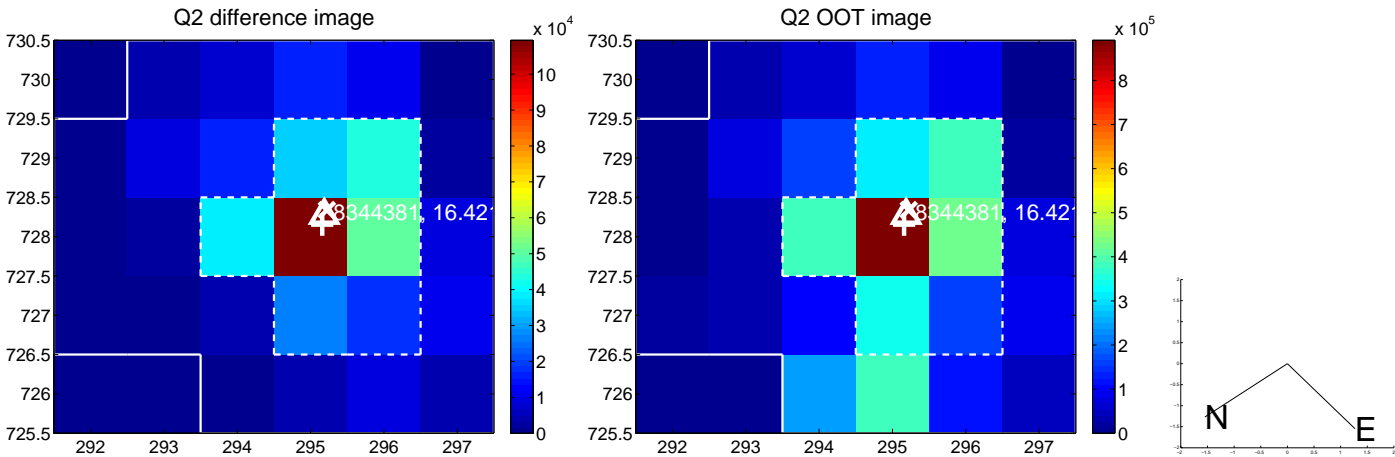
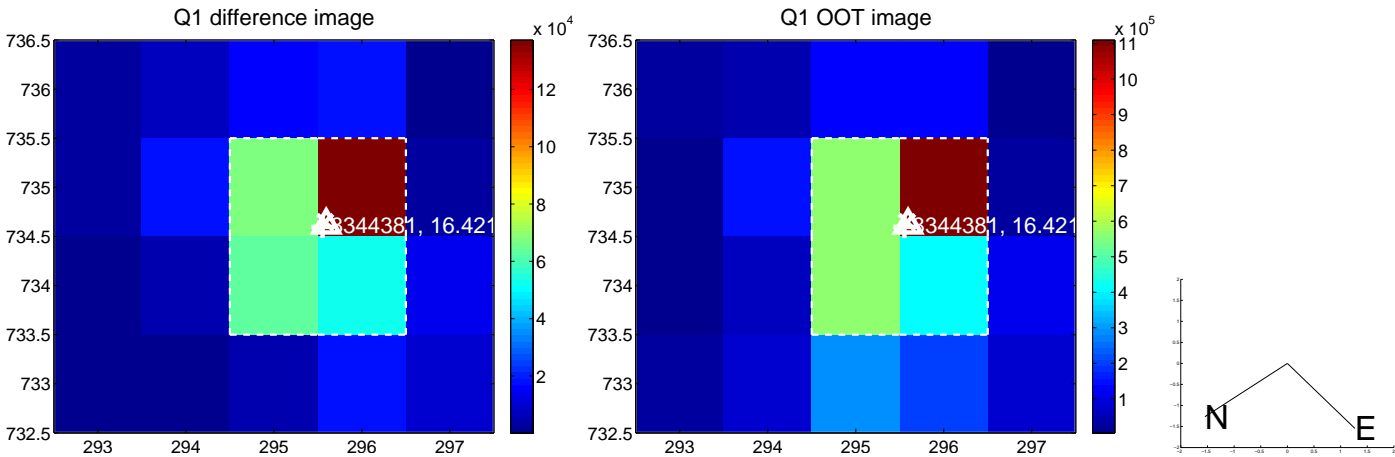
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.107 ± 0.071	1.50	0.034 ± 0.068	-0.101 ± 0.071
PRF-fit source offset from KIC position	0.140 ± 0.070	1.99	0.092 ± 0.068	0.105 ± 0.070
photometric centroid source offset	0.39 ± 0.01	44.37	0.13 ± 0.00	0.36 ± 0.01

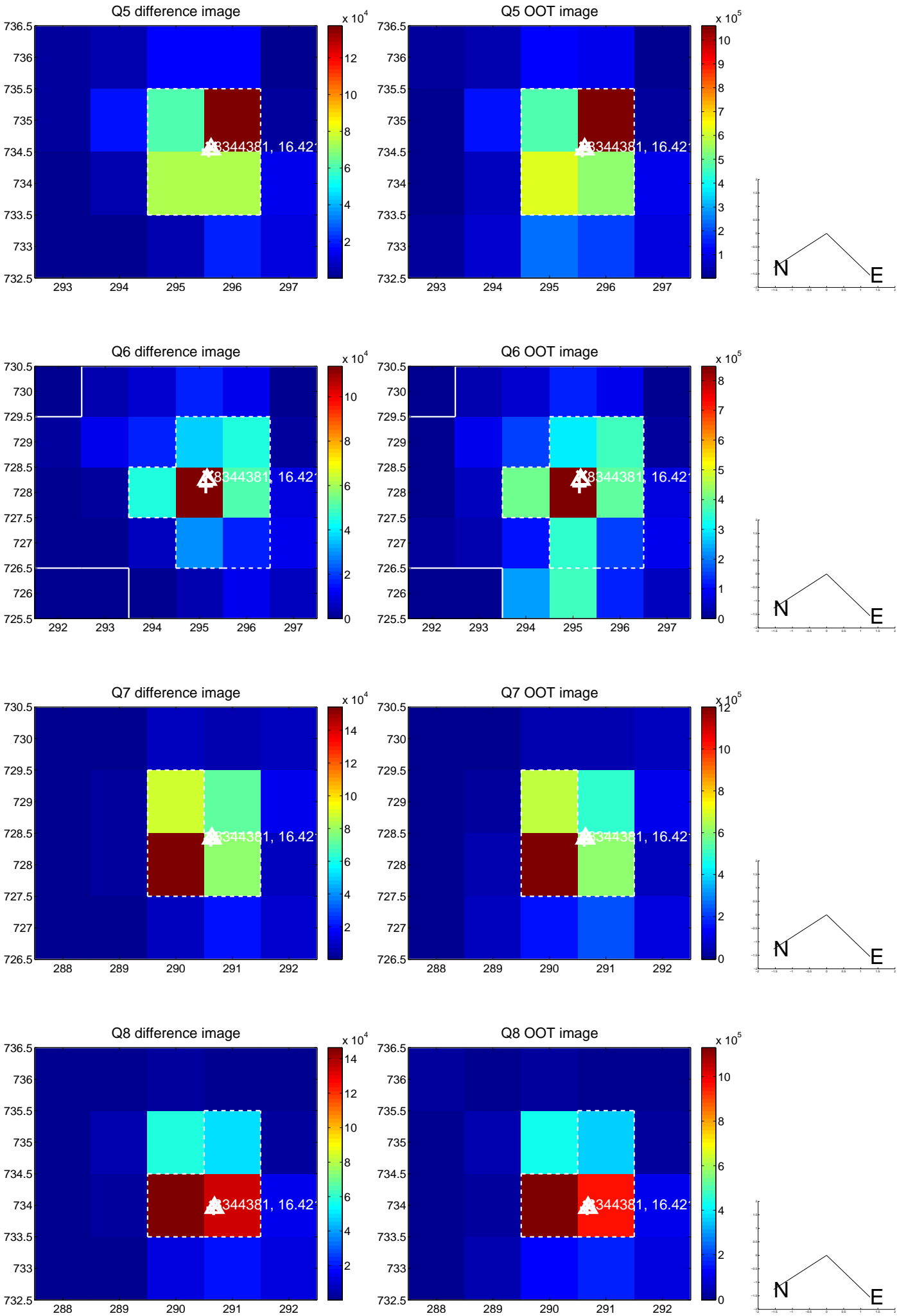


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

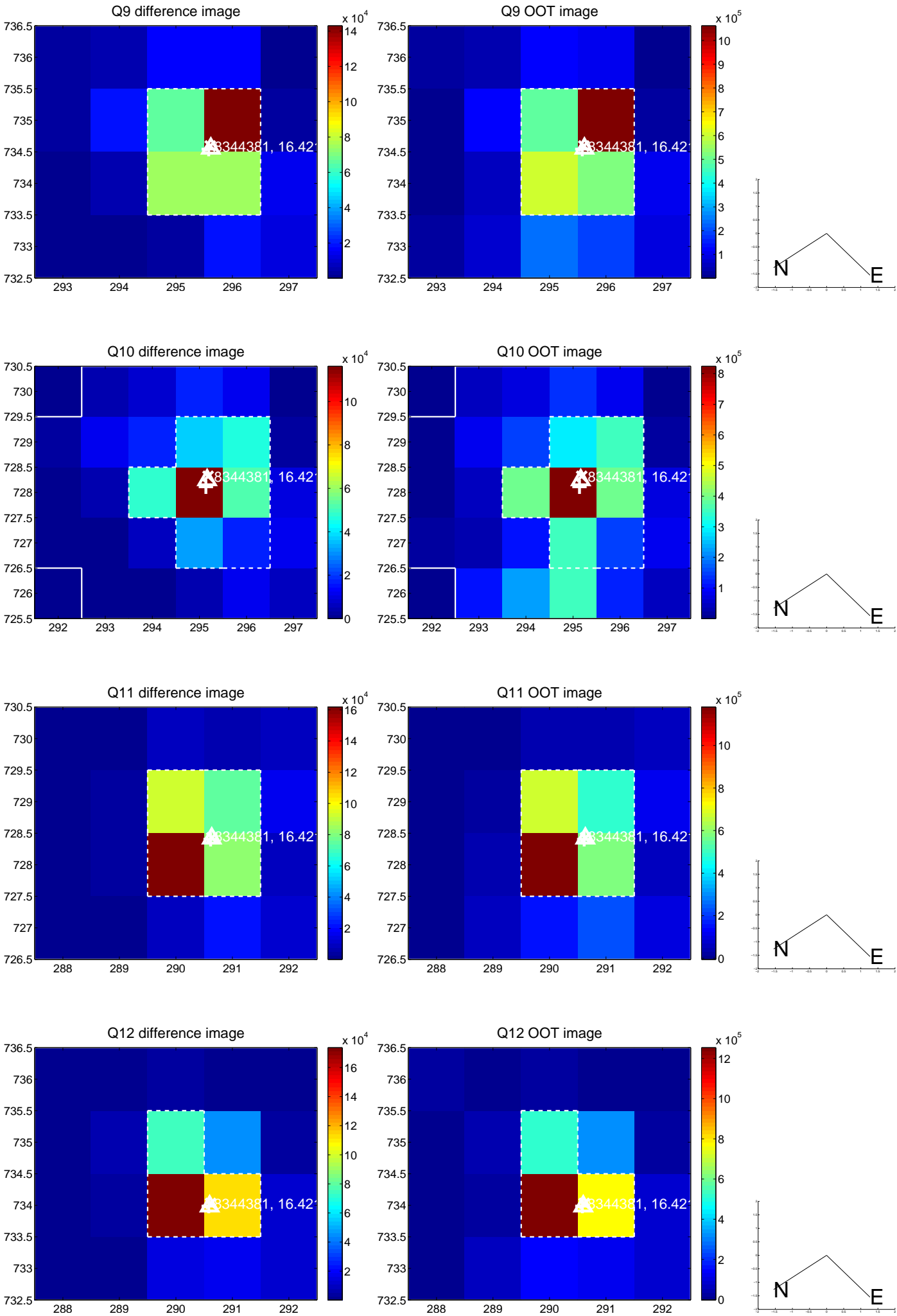
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



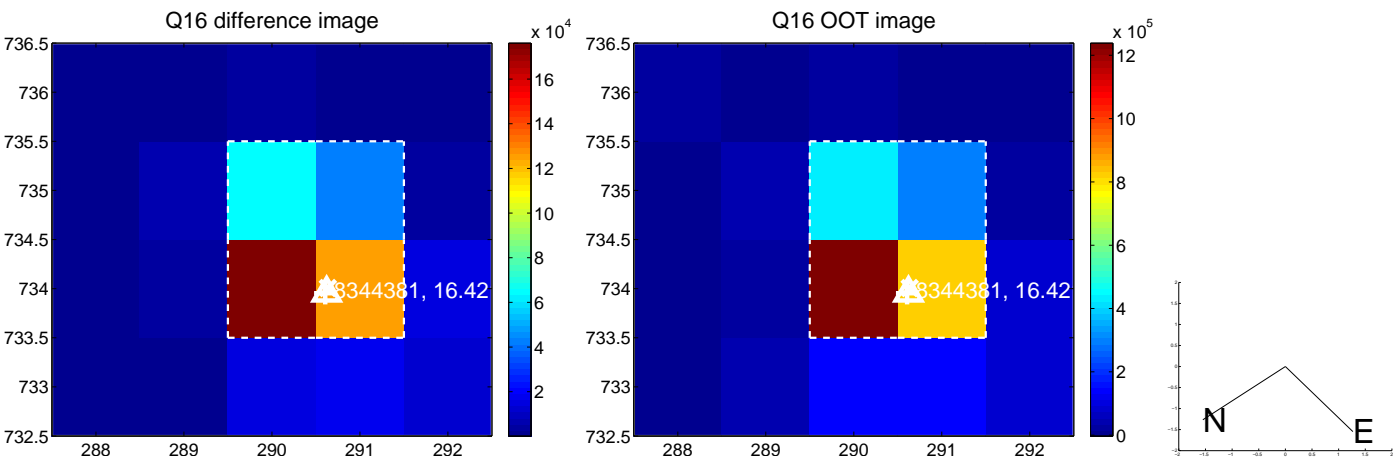
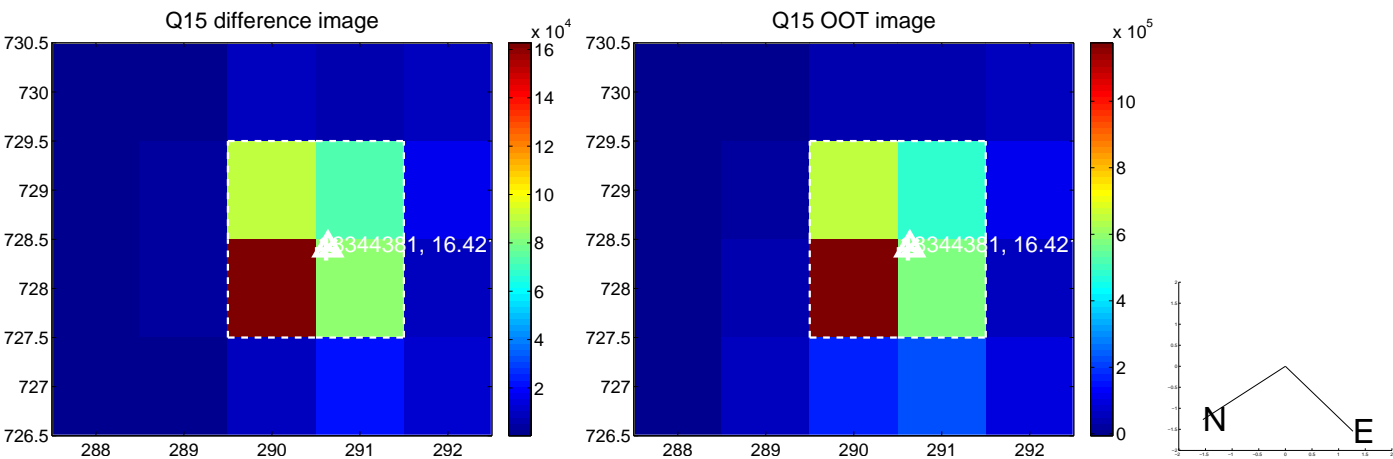
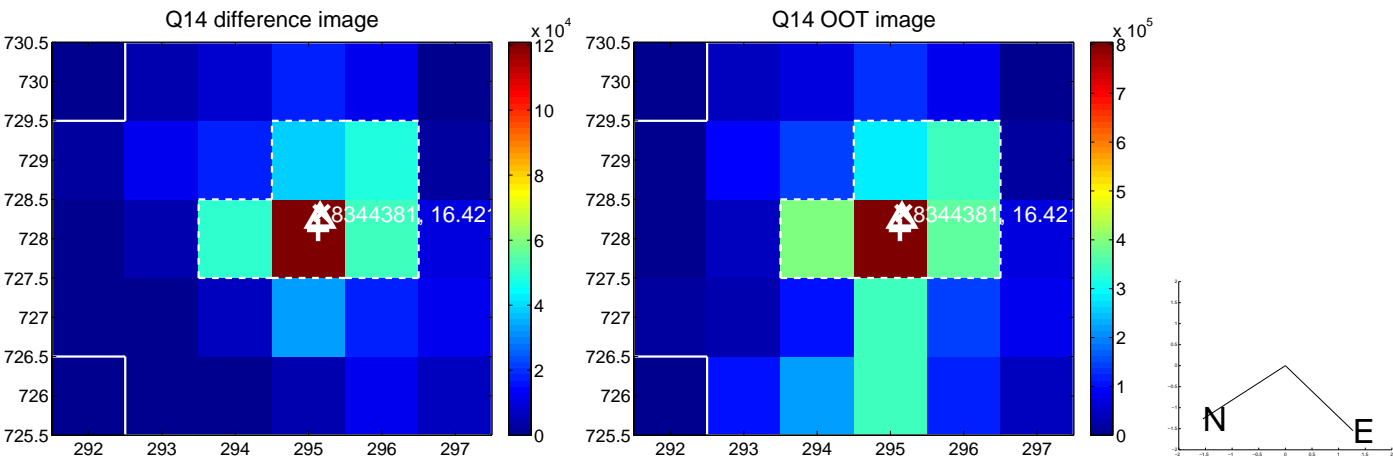
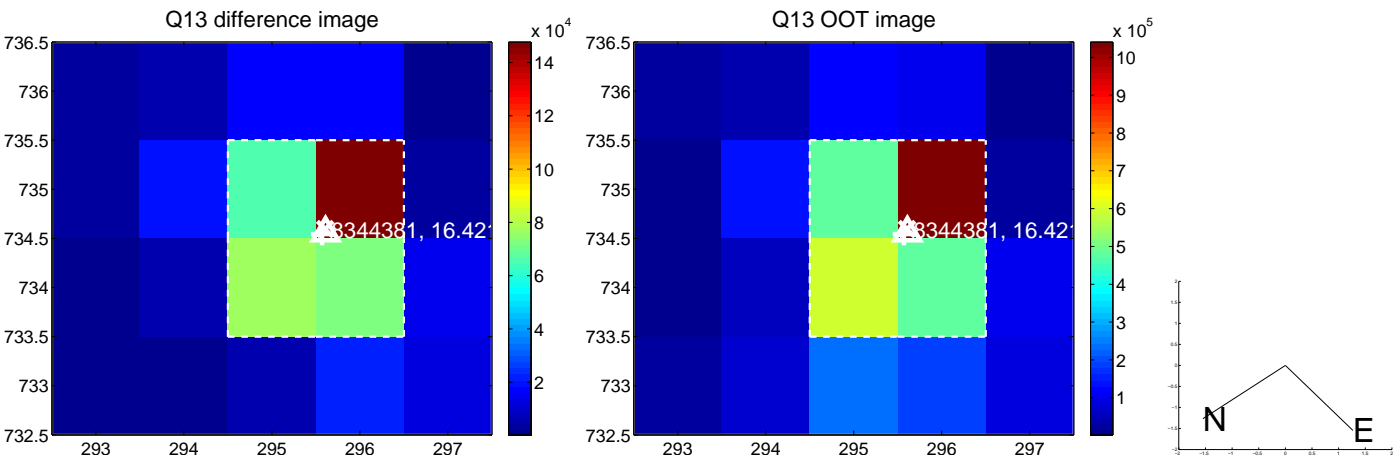
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



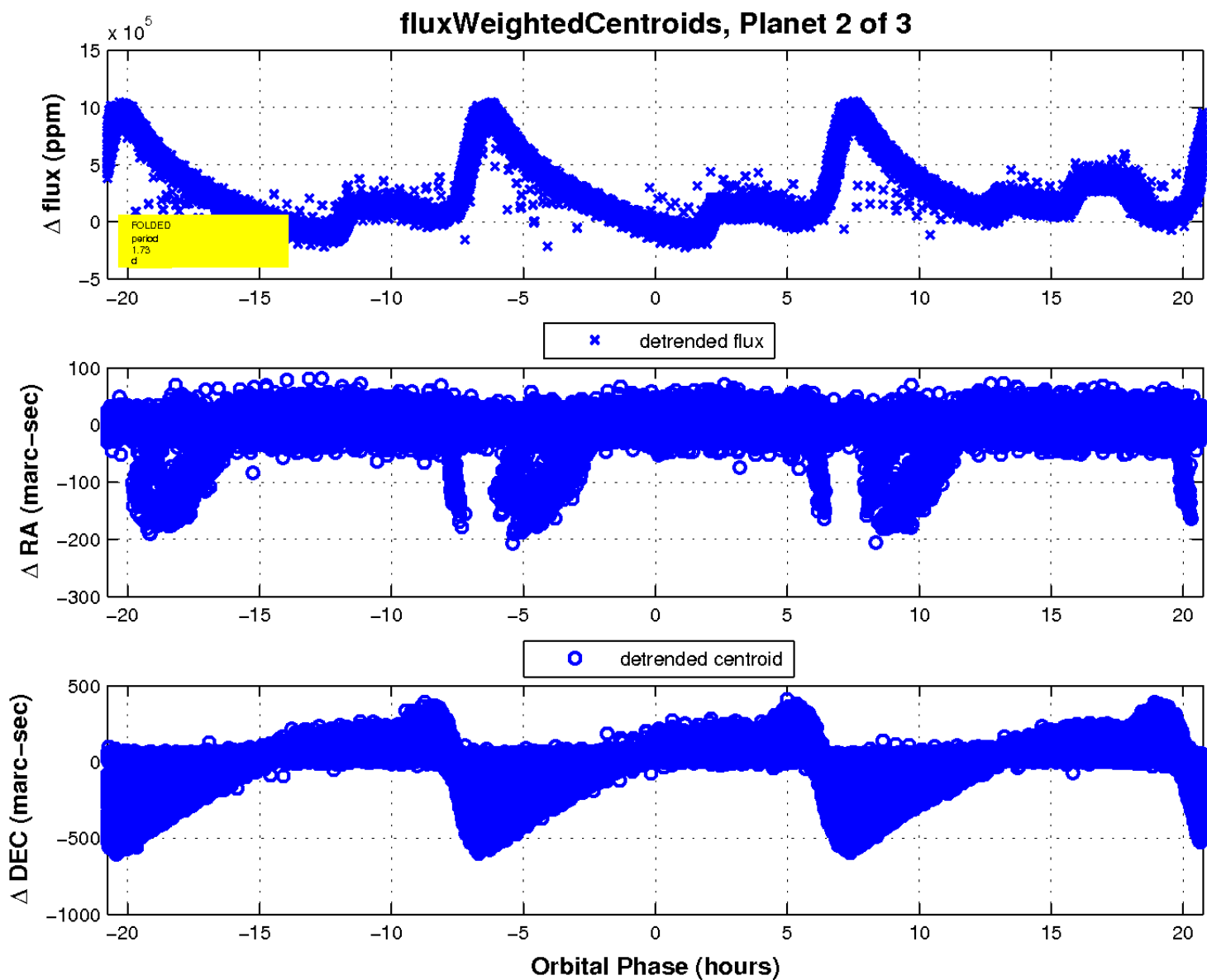
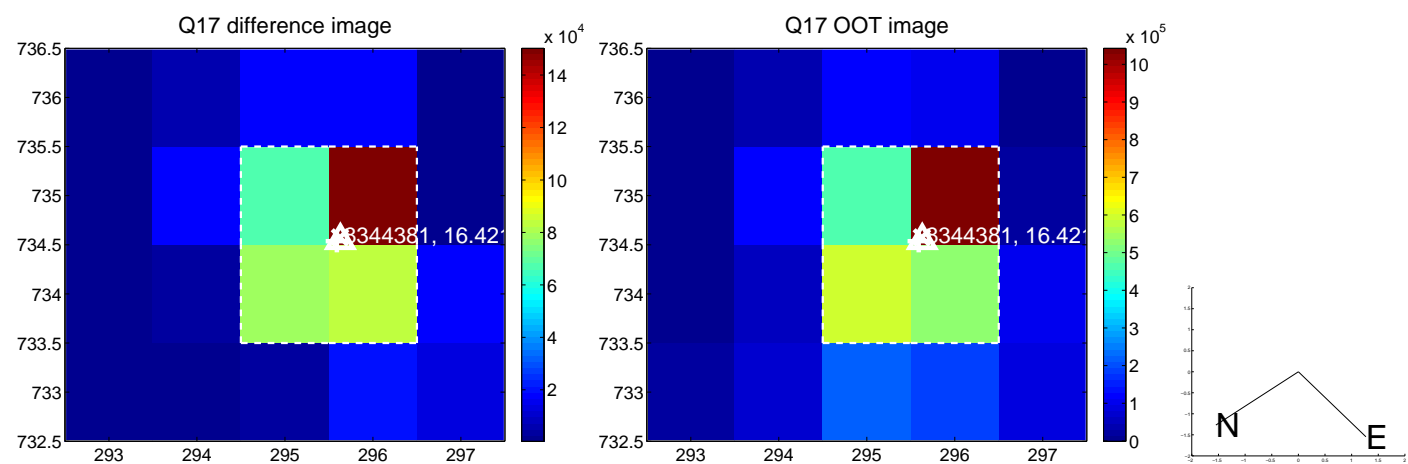
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

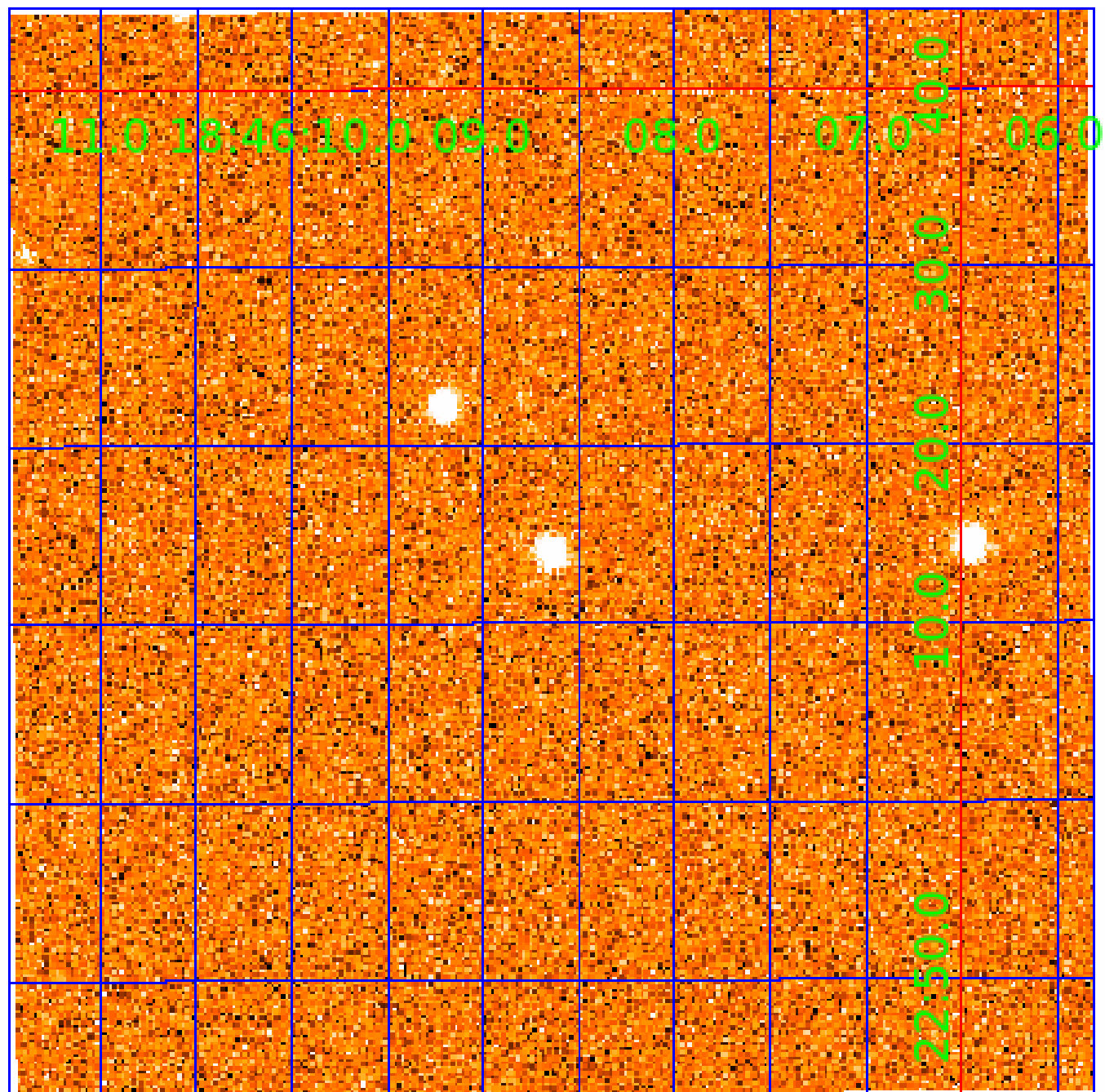


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008344381

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})
008344381-01	OBS	No	0.576829	131.854944	18169.0	2.000	374.4	-1.0	2.01	8233	27.52	62197.18
008344381-02	OBS	No	1.730457	131.575700	4352.4	6.000	20.4	-1.0	2.01	8233	13.43	14375.35
008344381-03	OBS	No	1.730506	132.127406	2909.6	5.000	13.1	-1.0	2.01	8233	10.98	14374.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008344381-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_NOFITS
008344381-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_NOFITS
008344381-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

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

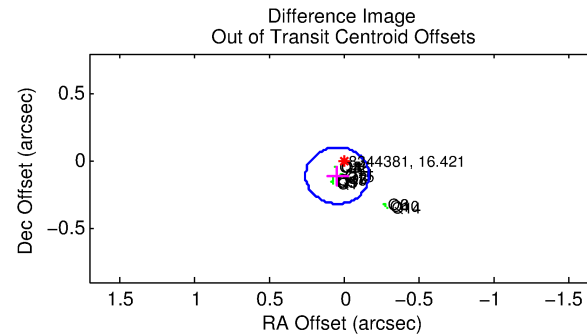
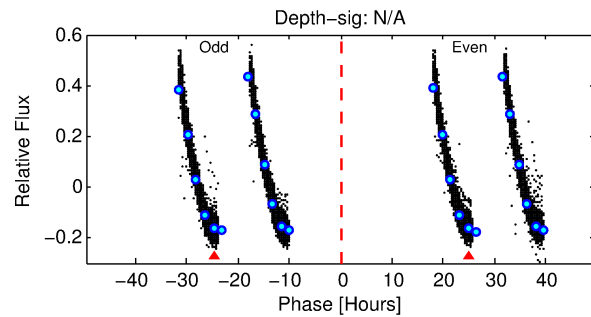
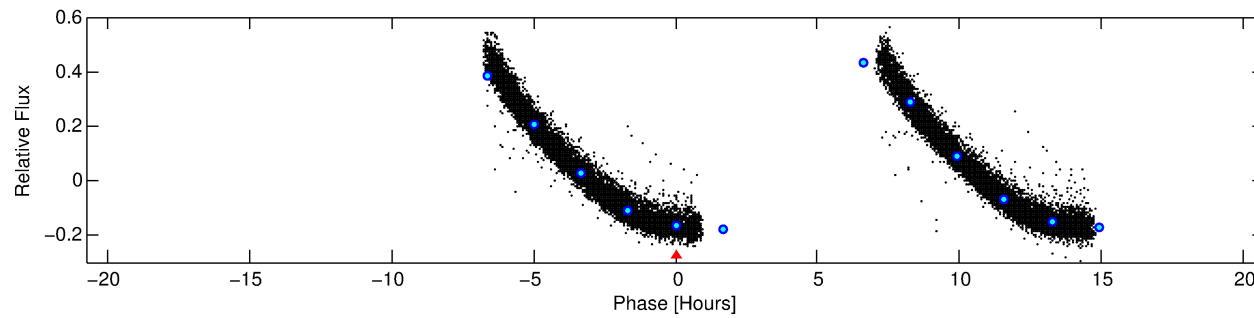
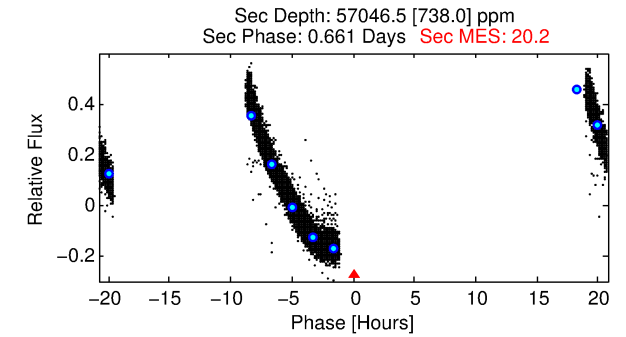
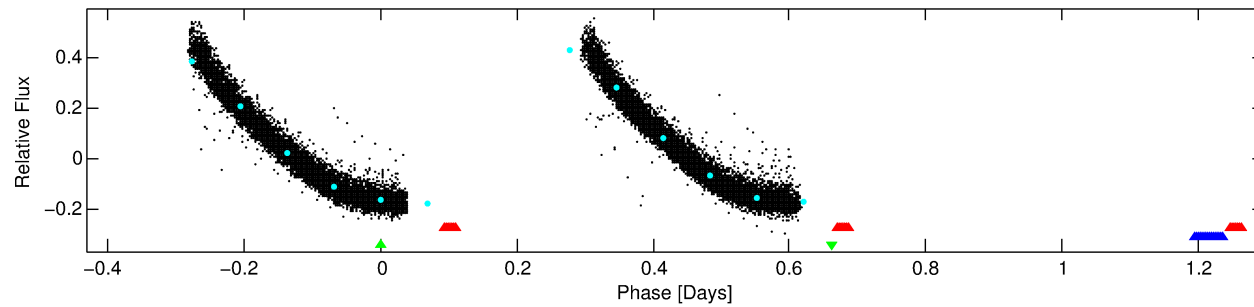
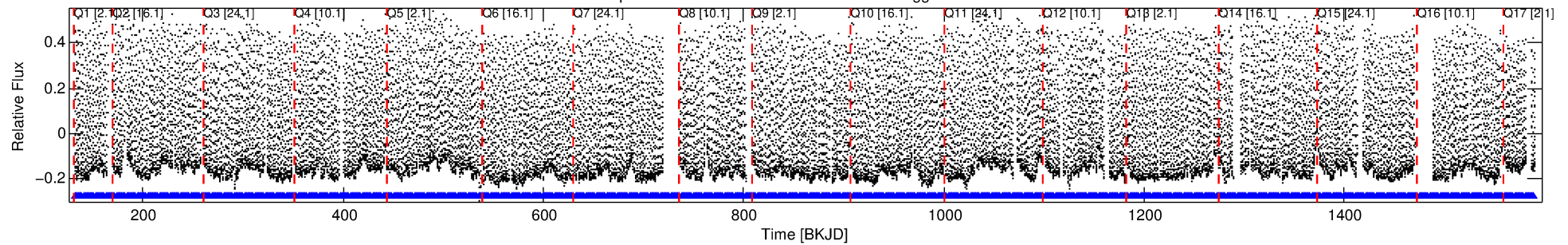
Ephemeris Match Information For 008344381-03

No Significant Match Found

DV One-Page Summary

KIC: 8344381 Candidate: 3 of 3 Period: 1.731 d

Kp: 16.42 R*: 2.01 Rs Teff: 8233.0 K Logg: 4.08 Fe/H: -0.200



TPS TCE Results:

Period = 1.73051 d
Epoch = 132.1274 BKJD

DV fit results are unavailable

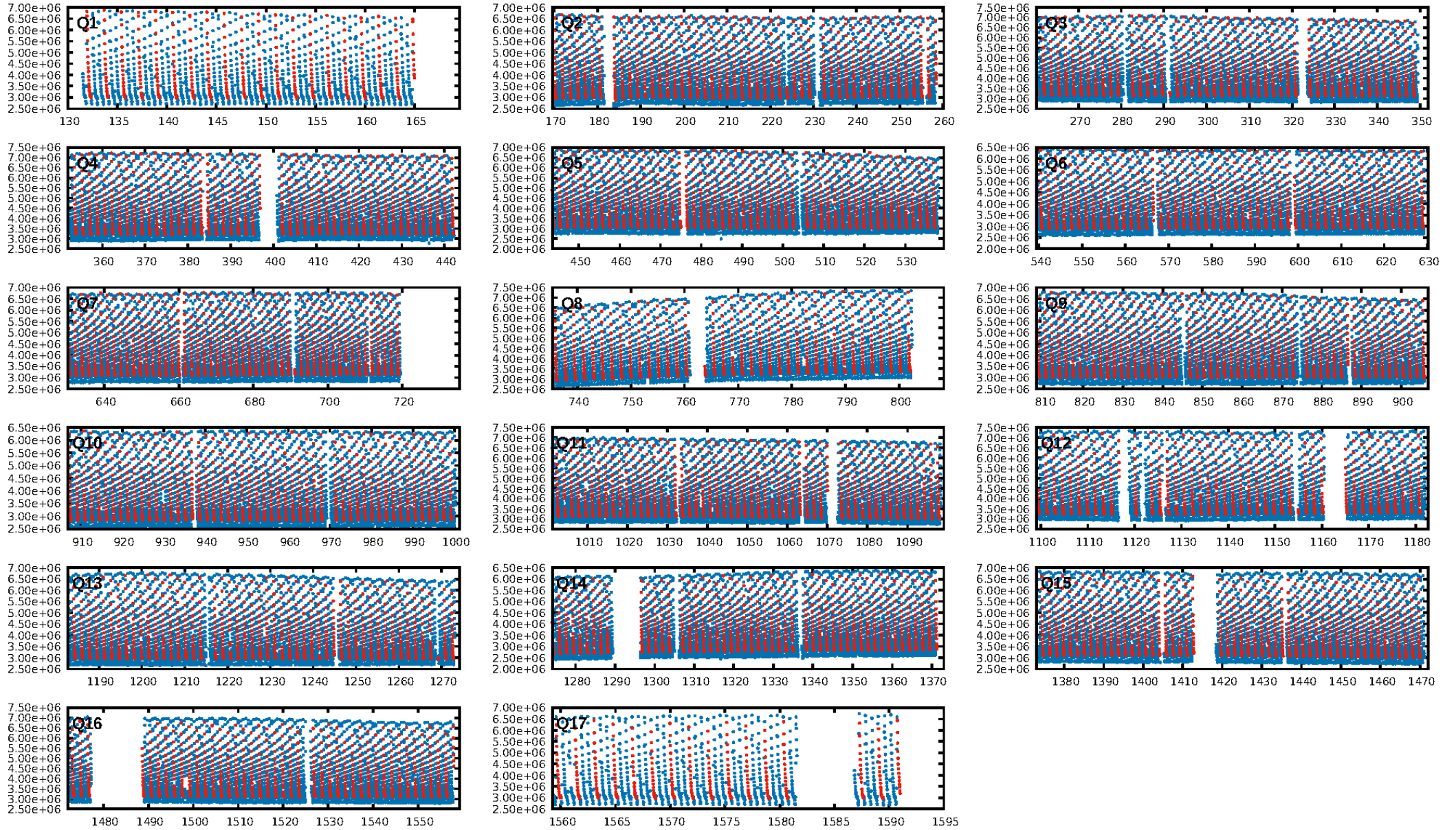
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [744/744]
GhostDiagnostic-chr: 0.5118
Centroid-sig: N/A
Centroid-so: 0.650 arcsec [77.12 σ]
OotOffset-rm: 0.116 arcsec [1.65 σ]
KicOffset-rm: 0.142 arcsec [2.02 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]

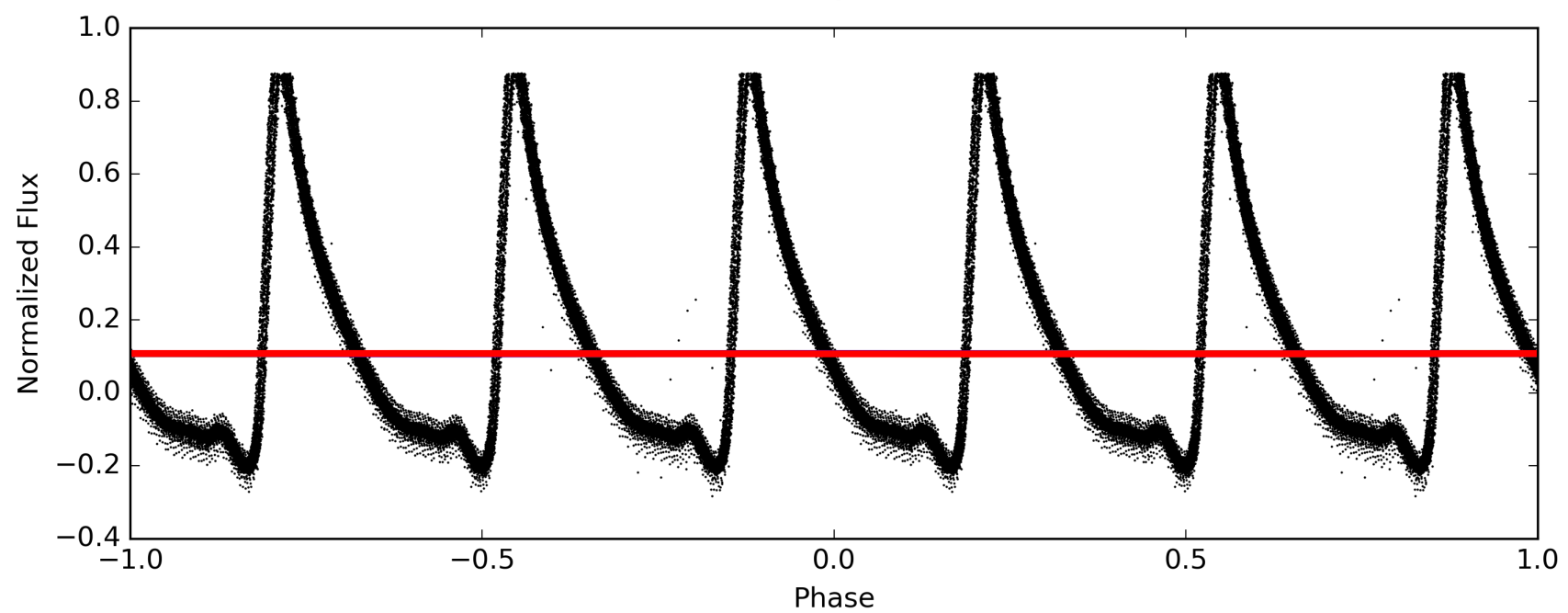
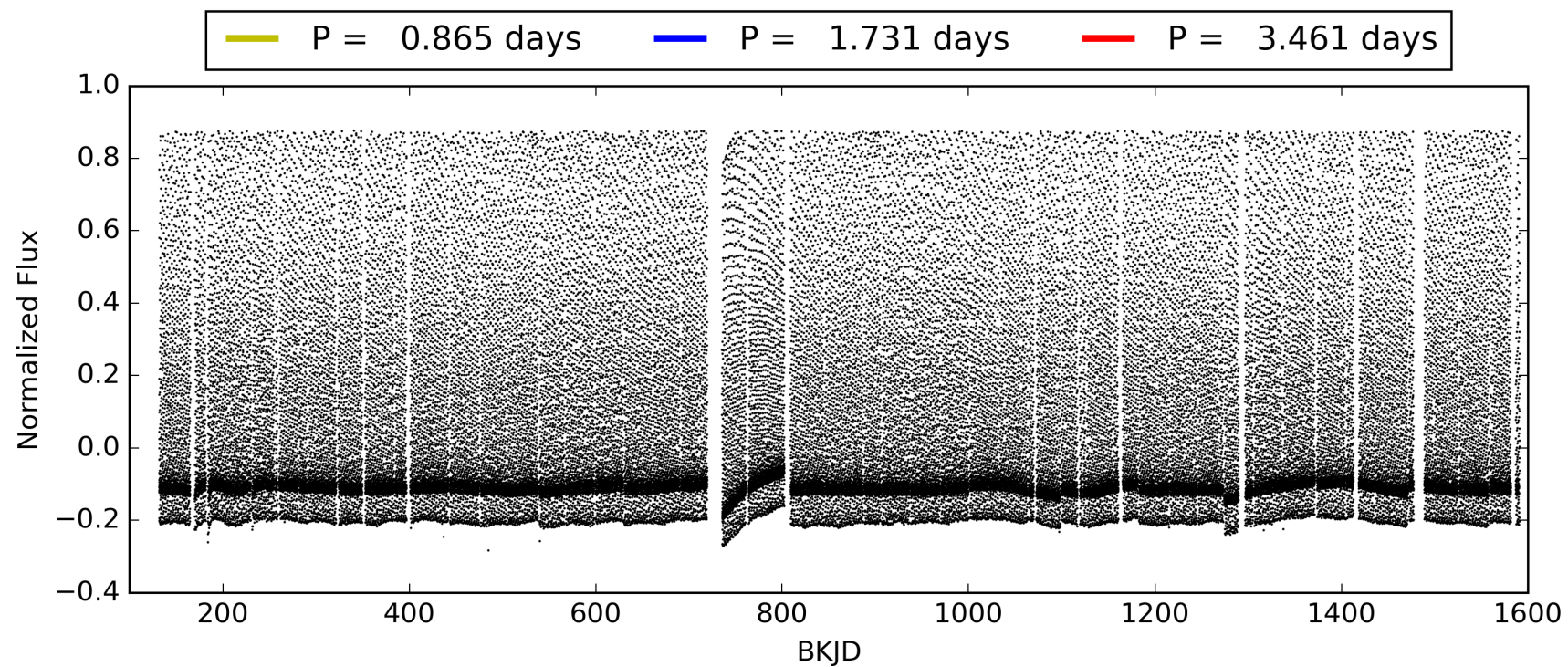
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:04:08 Z

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

TCE 008344381-03, PDC Light Curves

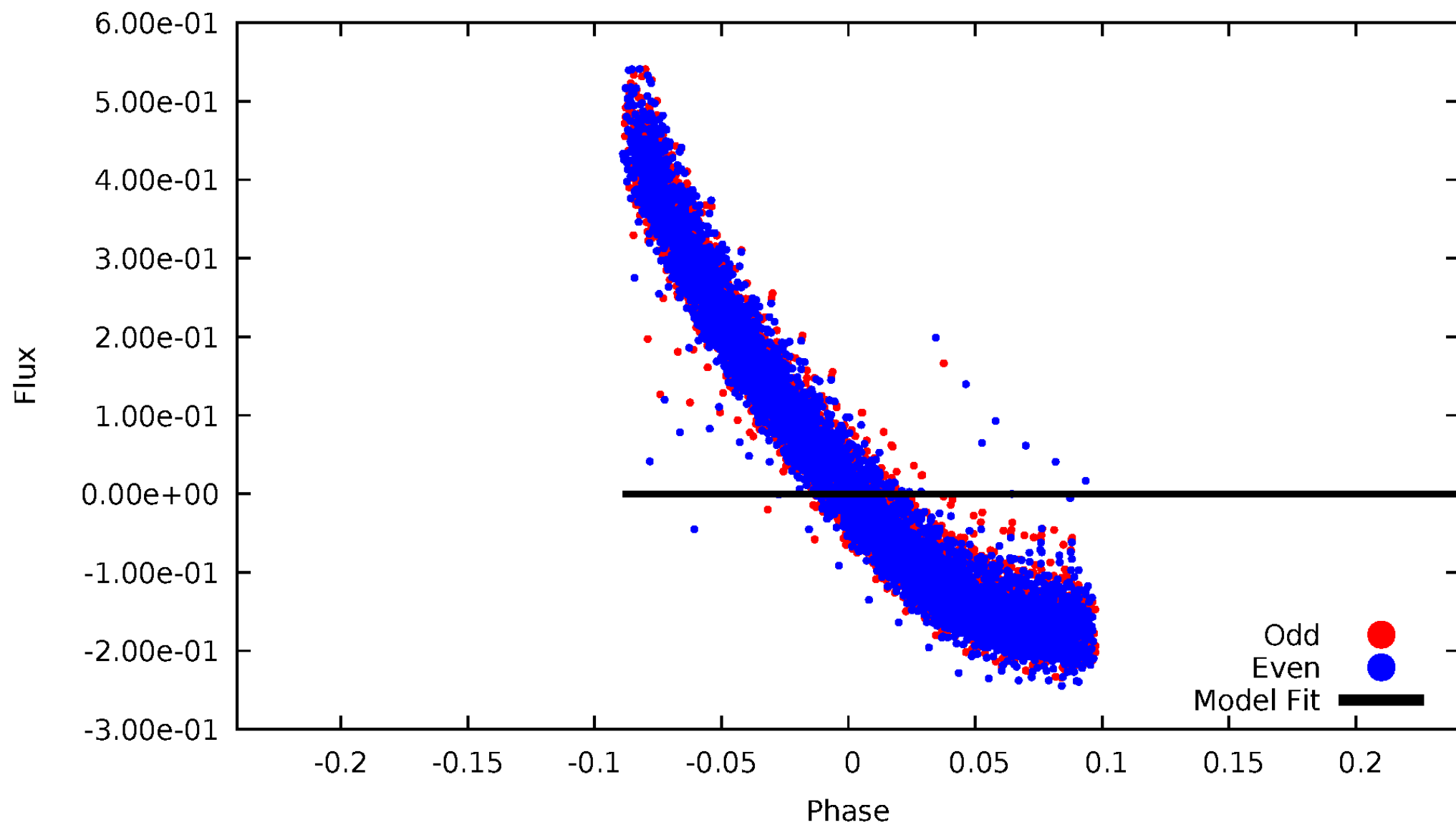


TCE 008344381-03



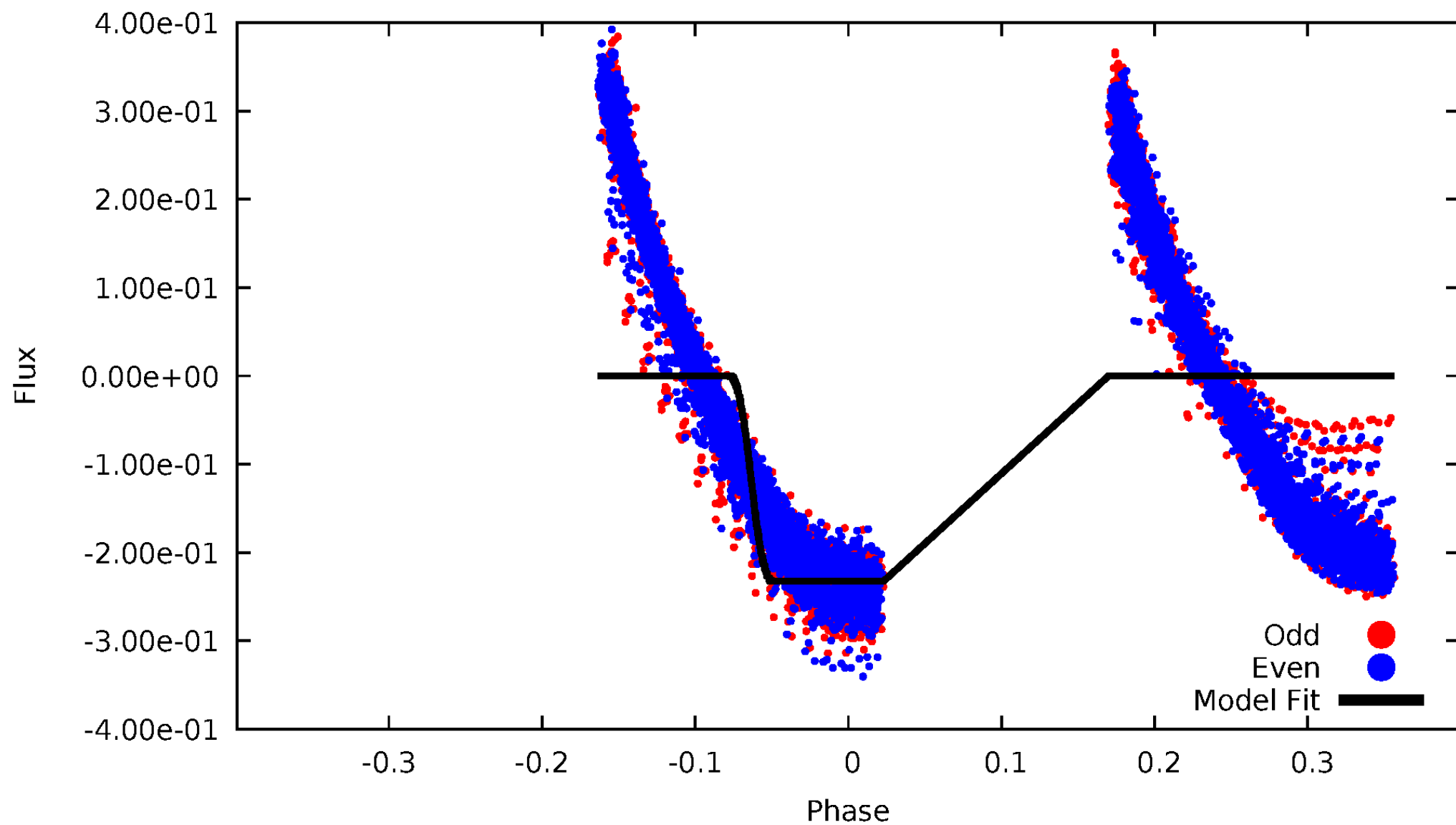
DV Odd/Even

TCE 008344381-03



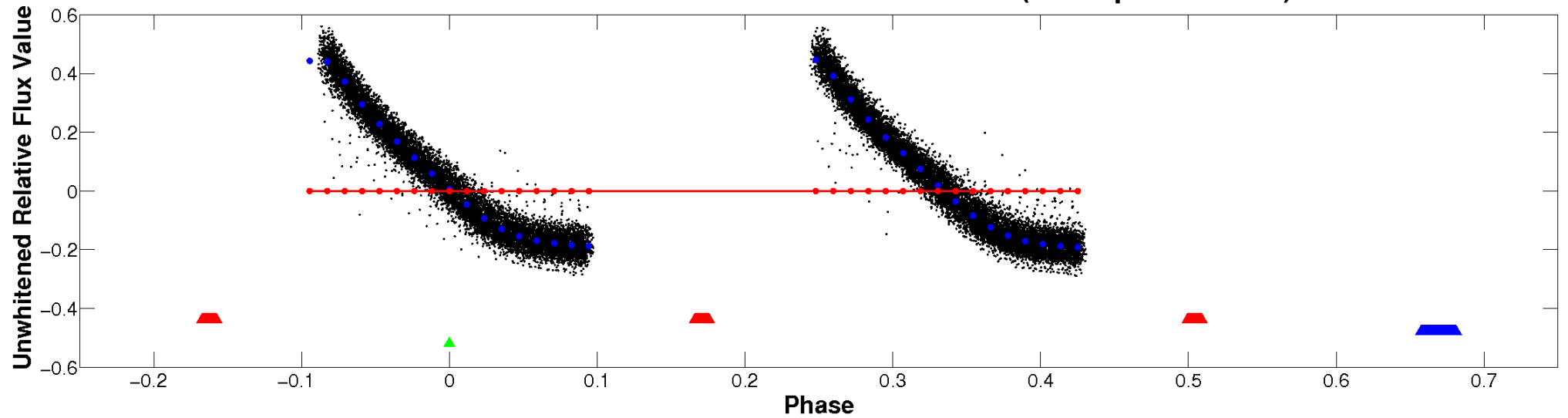
ALT Odd/Even

TCE 008344381-03

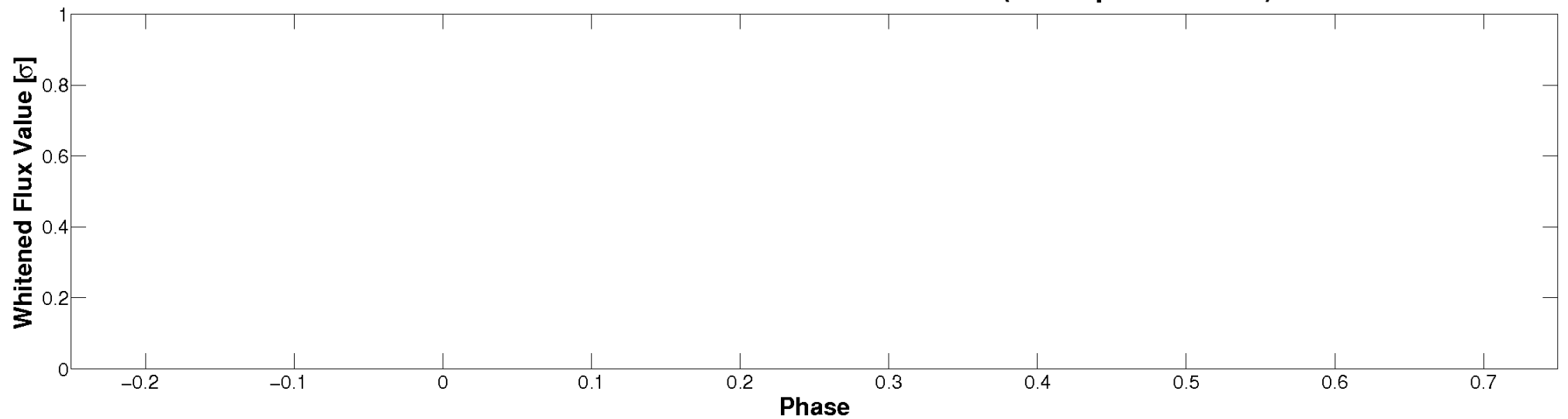


Non-Whitened Vs. Whitened Light Curve

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

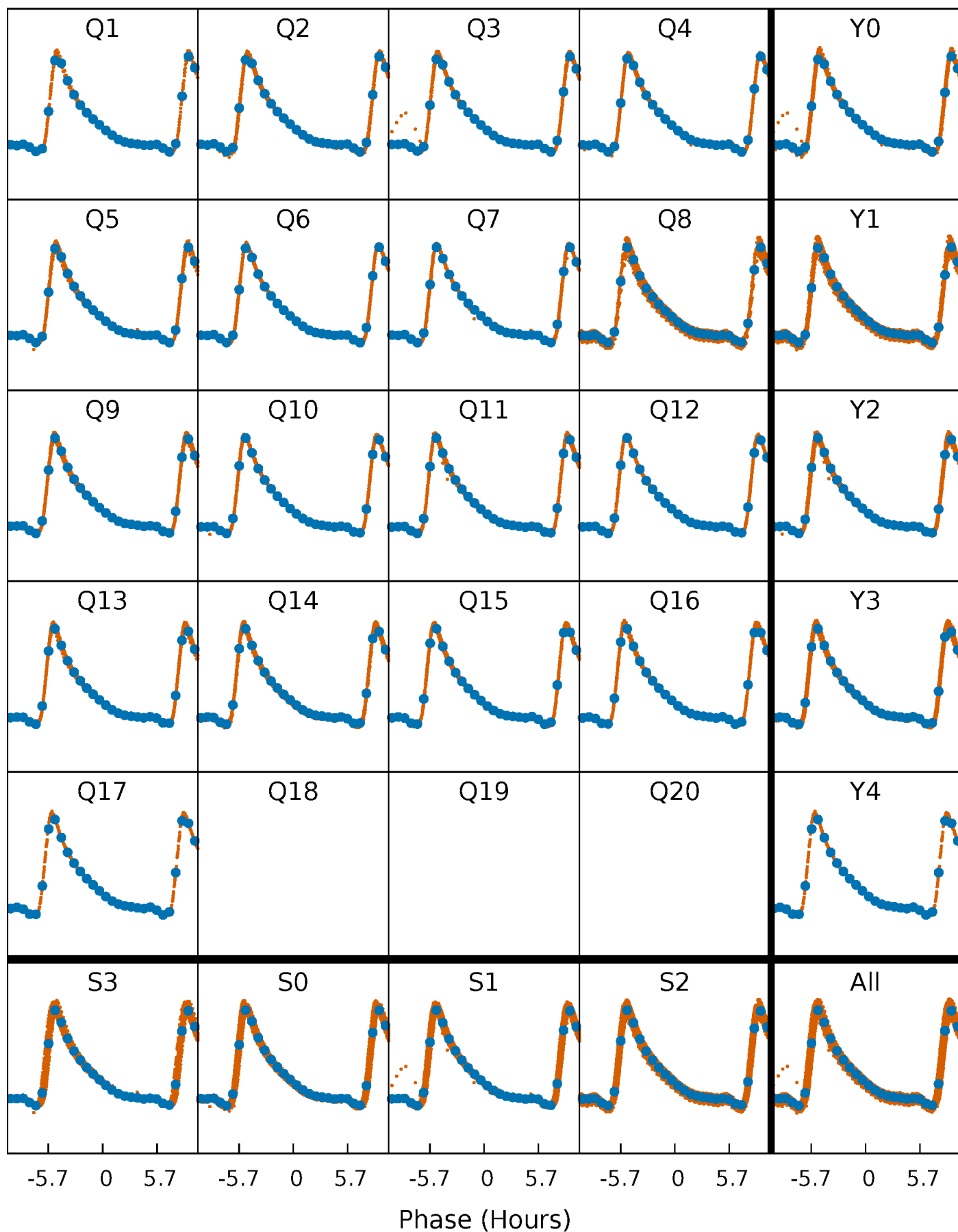


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



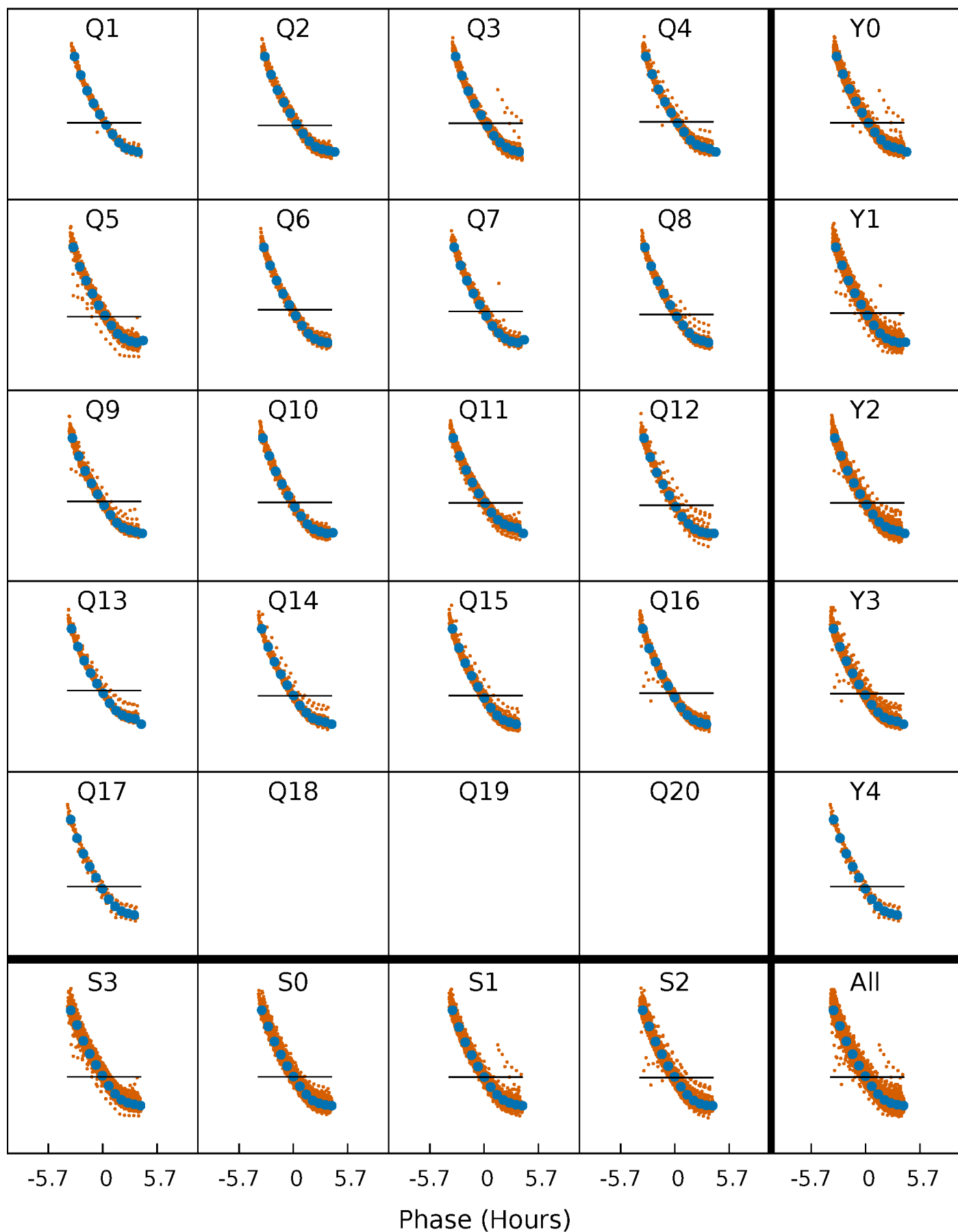
PDC Quarter-Phased Transit Curves

TCE 008344381-03 P= 1.730506 Days $T_0=132.127406$ (BKJD)



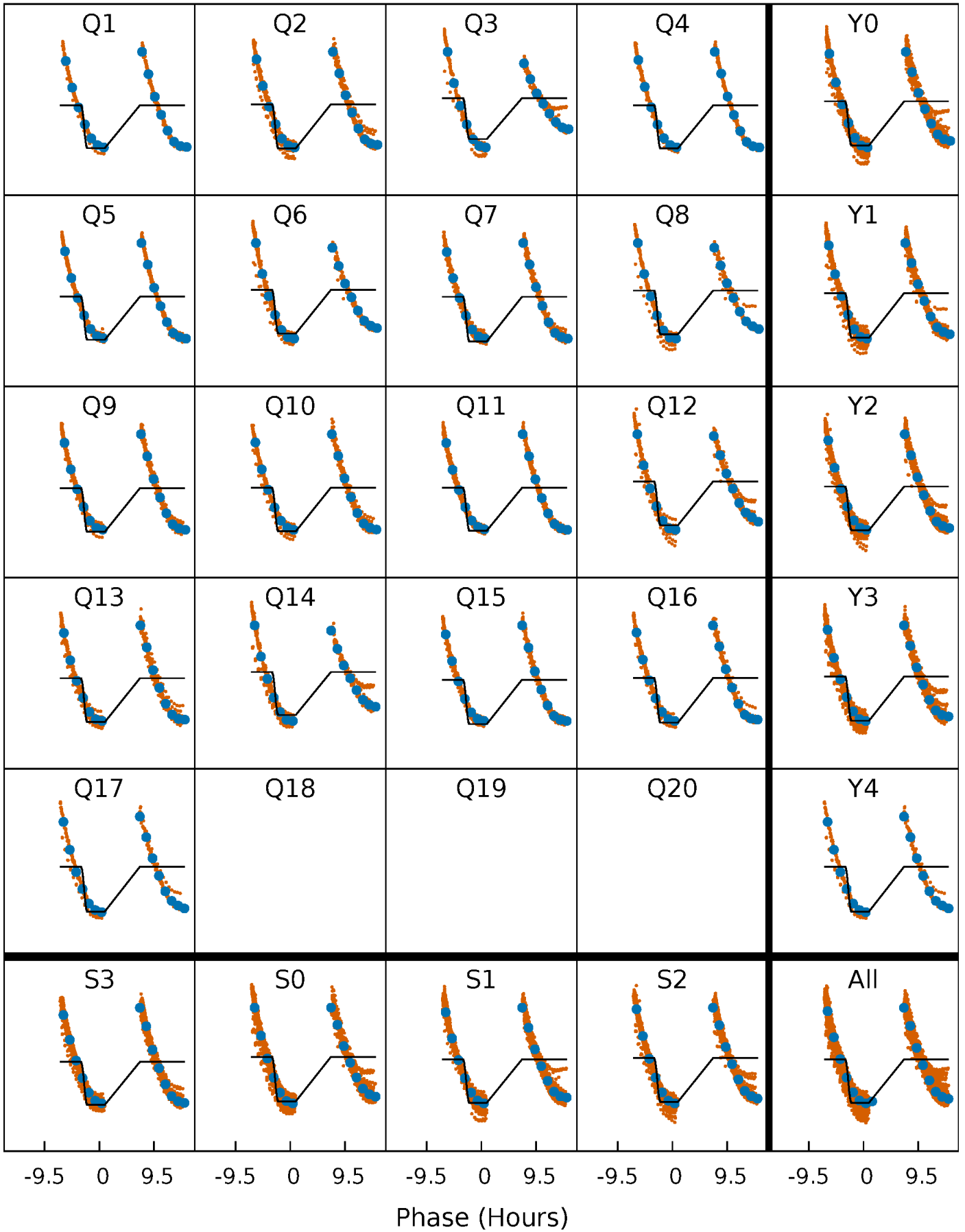
DV Quarter-Phased Transit Curves

TCE 008344381-03 $P = 1.730506$ Days $T_0 = 132.127406$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

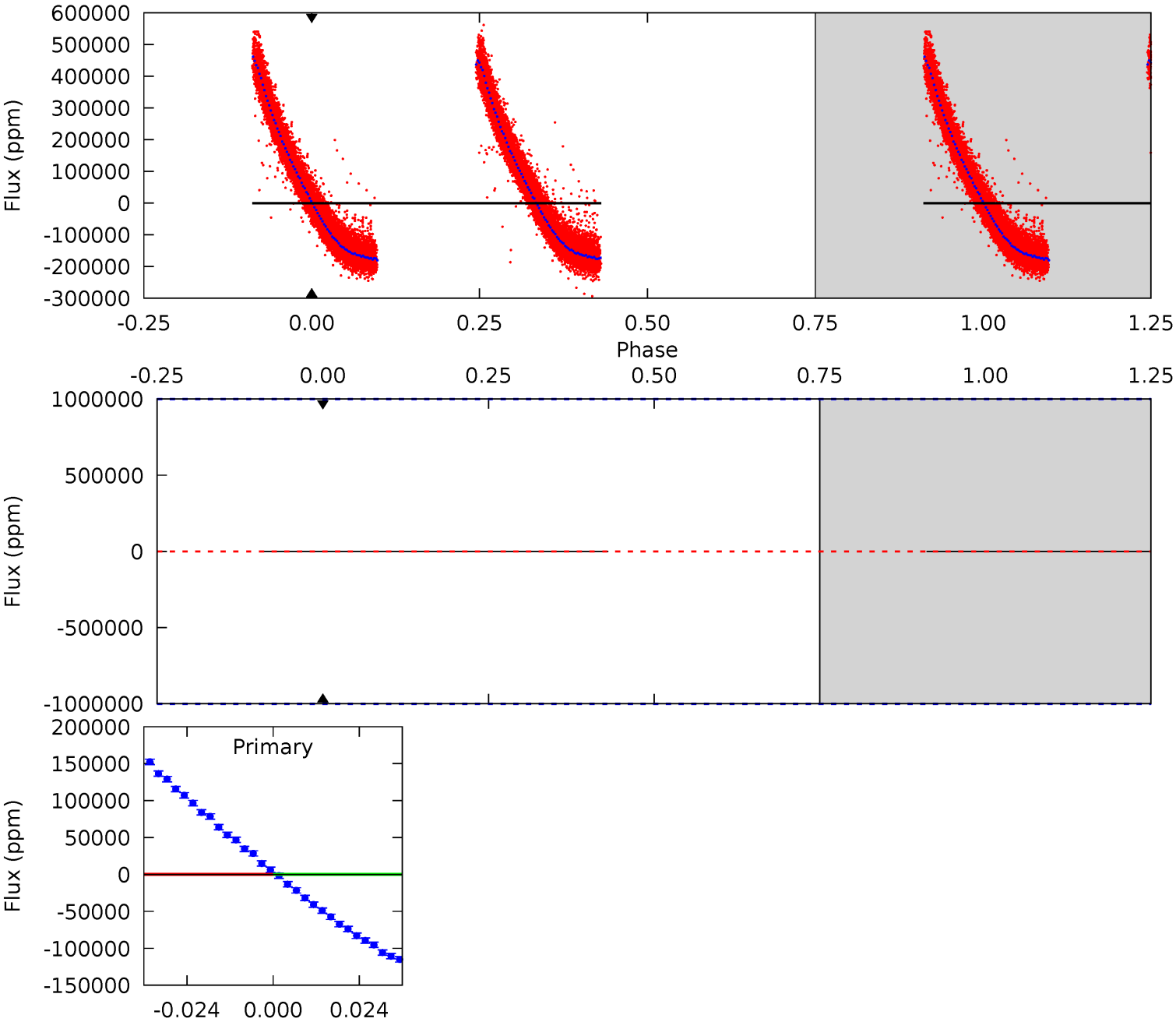
TCE 008344381-03 P= 1.730506 Days $T_0=132.256363$ (BKJD)



DV Model-Shift Uniqueness Test

008344381-03, P = 1.730506 Days, E = 130.396900 Days

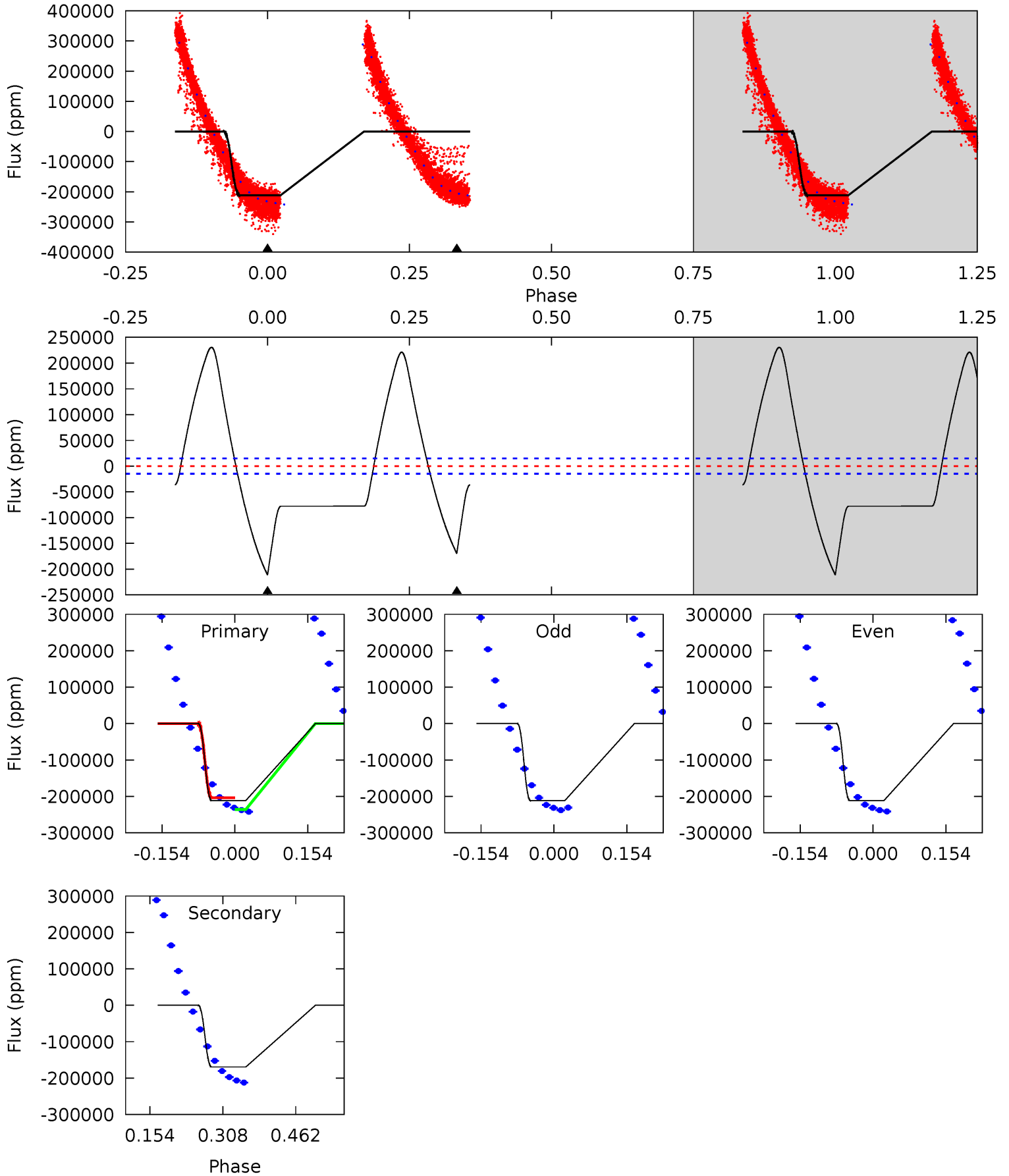
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008344381-03, P = 1.730506 Days, E = 130.525857 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.1	50.6	0	0	4.47	1.43	11.2	63.1	63.1	50.6	50.6	0.02	1.05	0.52	4.88



Stellar Parameters For KIC 008344381

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8233^{+198}_{-368}	$4.076^{+0.192}_{-0.144}$	$-0.200^{+0.200}_{-0.400}$	$2.014^{+0.431}_{-0.527}$	$1.761^{+0.134}_{-0.314}$	$0.304^{+0.318}_{-0.114}$
	+2%/-4%	+5%/-4%	+100%/-200%	+21%/-26%	+8%/-18%	+105%/-38%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008344381-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$19.14^{+18.76}_{-12.23}$	3890^{+258}_{-303}	-6184^{+39143}_{-30638}	$-4.791^{+253.106}_{-288.957}$
Alt.	-169530 ± 3353	$102.94^{+26.05}_{-23.98}$	3850^{+255}_{-284}	7790^{+1255}_{-802}	12^{+8}_{-4}

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 $A_{obs} \gg 1.0$

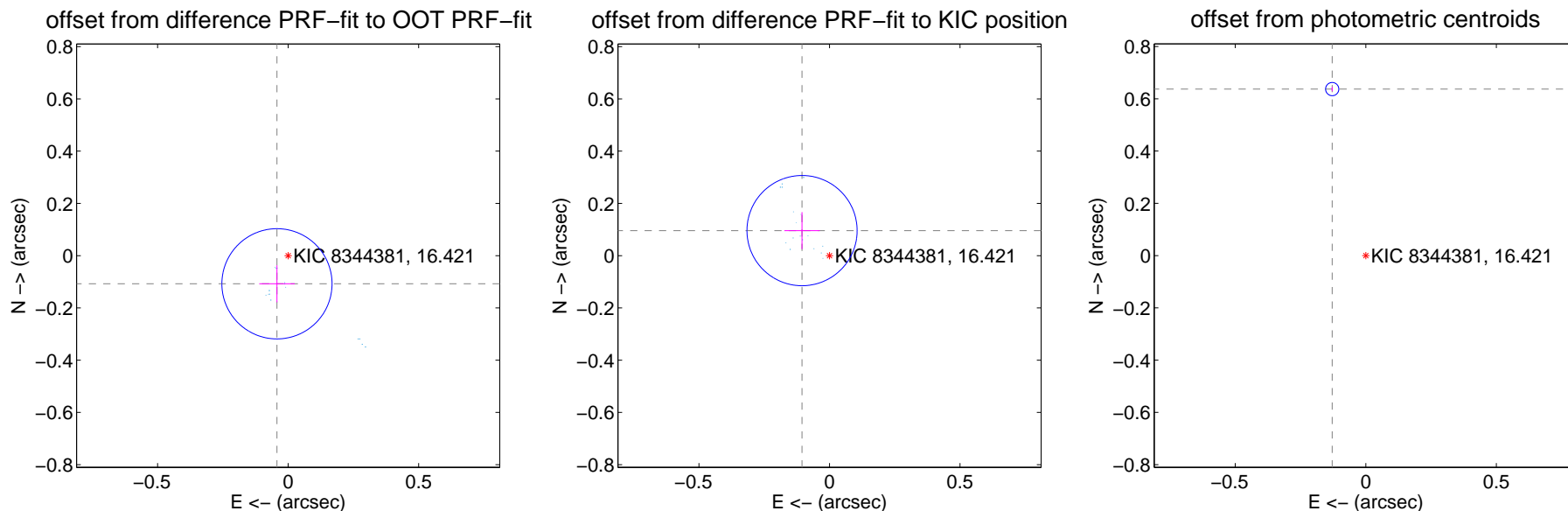
DV Centroid Data

Supplemental centroid analysis for 008344381-03. Kepler magnitude: 16.42. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

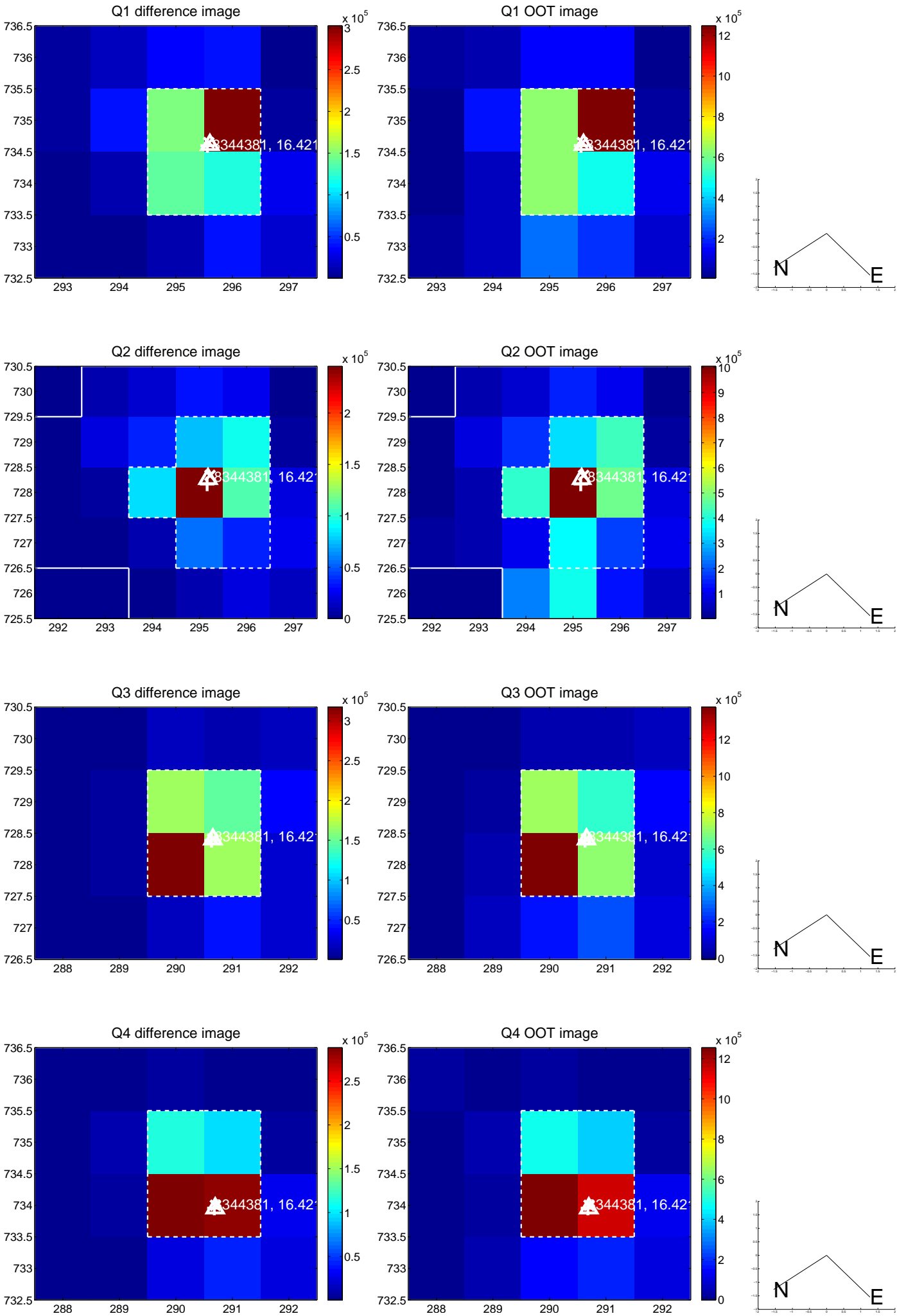
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.116 ± 0.070	1.65	0.043 ± 0.068	-0.108 ± 0.071
PRF-fit source offset from KIC position	0.142 ± 0.070	2.02	0.105 ± 0.068	0.096 ± 0.071
photometric centroid source offset	0.65 ± 0.01	77.12	0.13 ± 0.00	0.64 ± 0.01

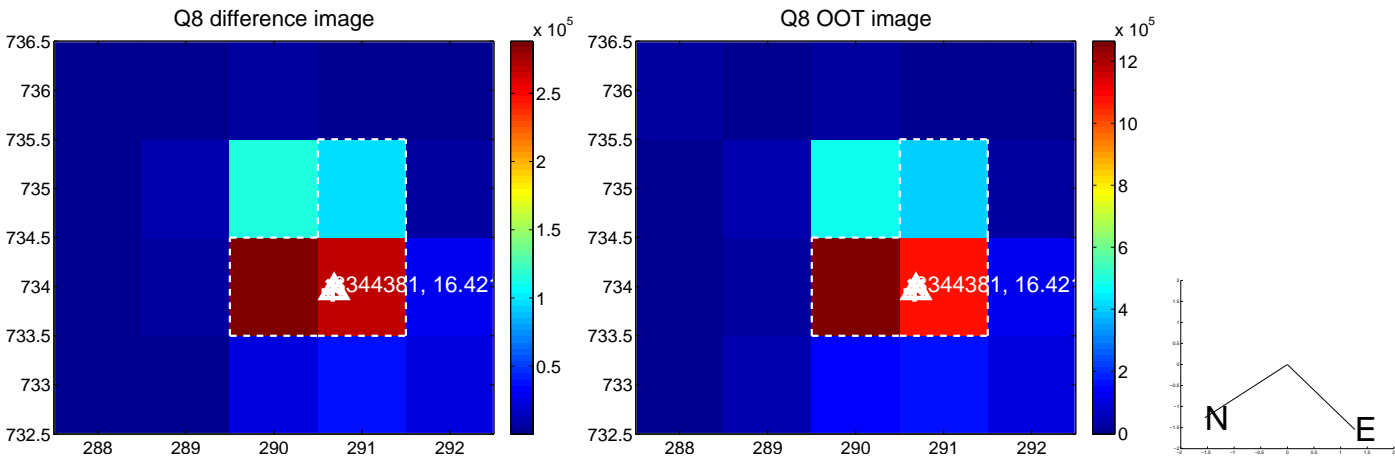
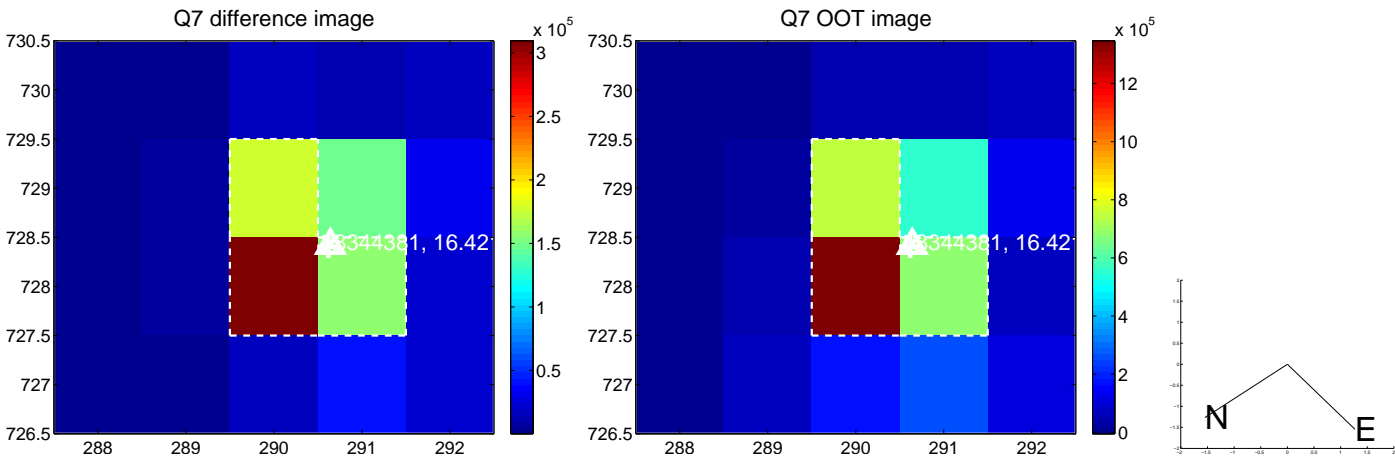
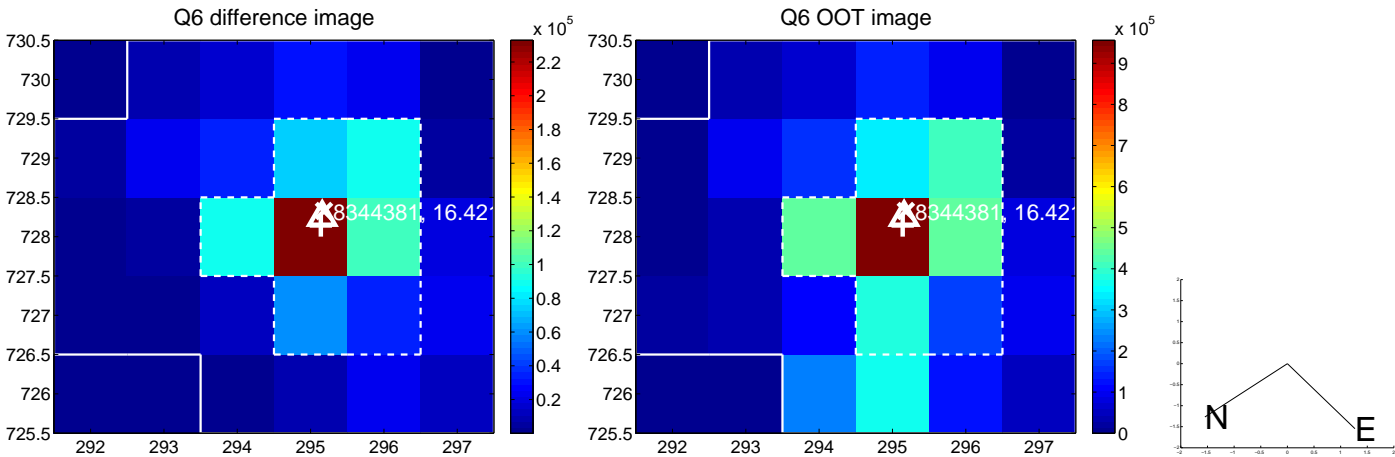
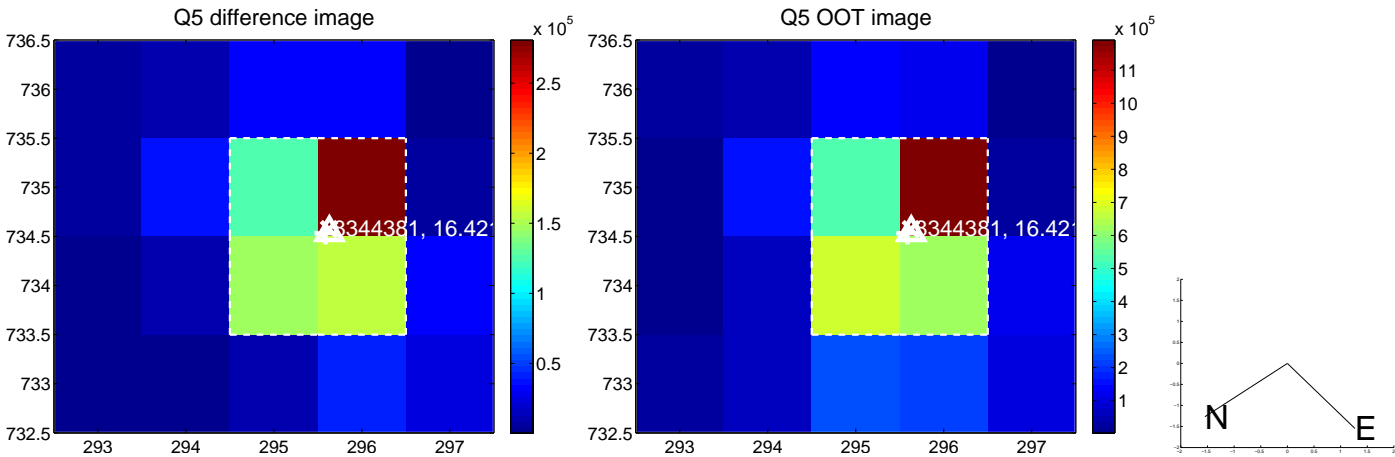


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

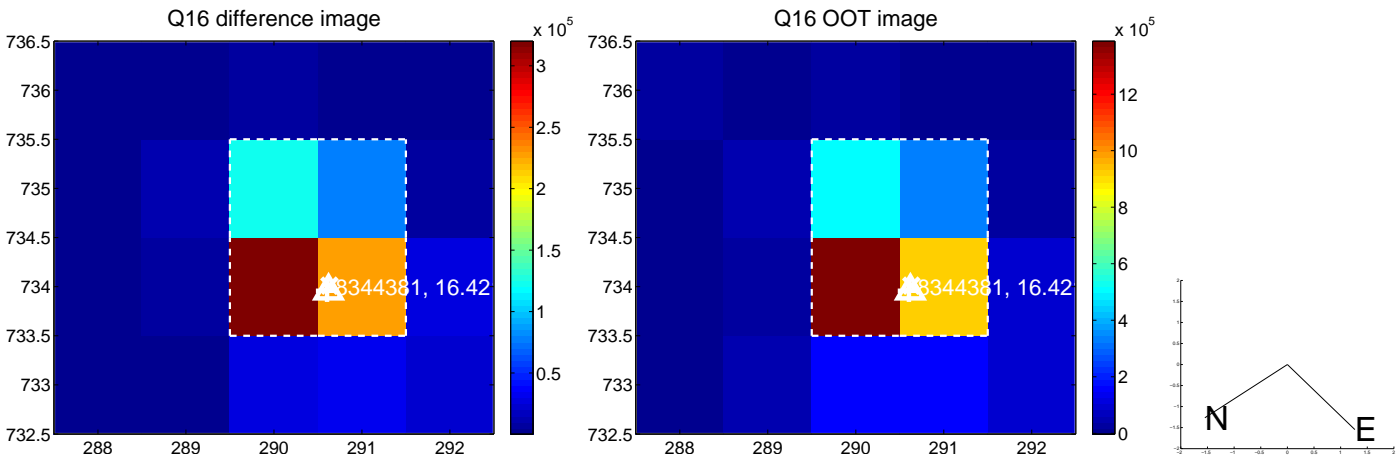
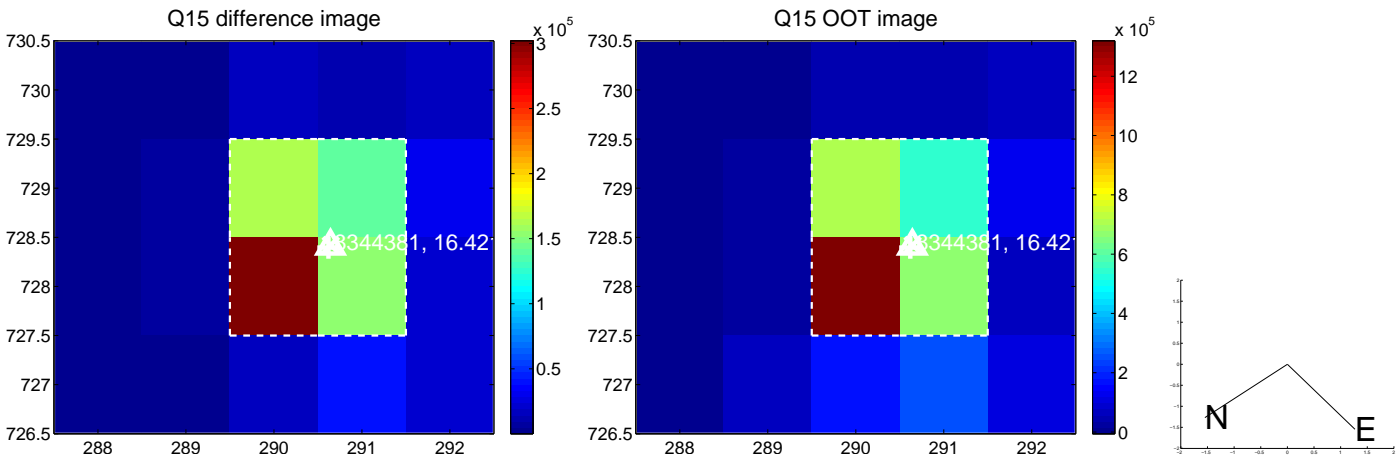
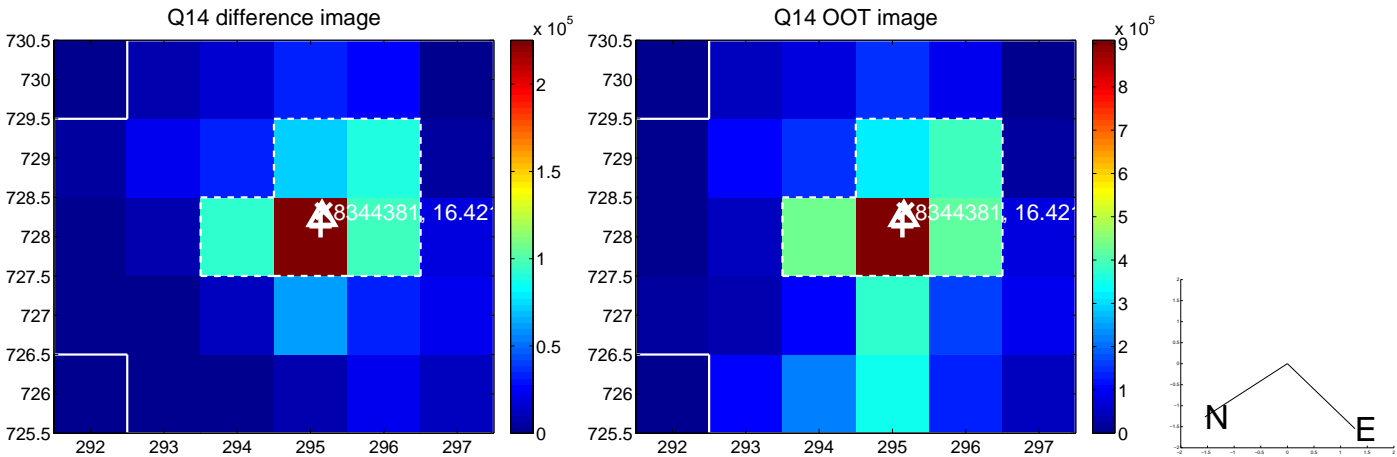
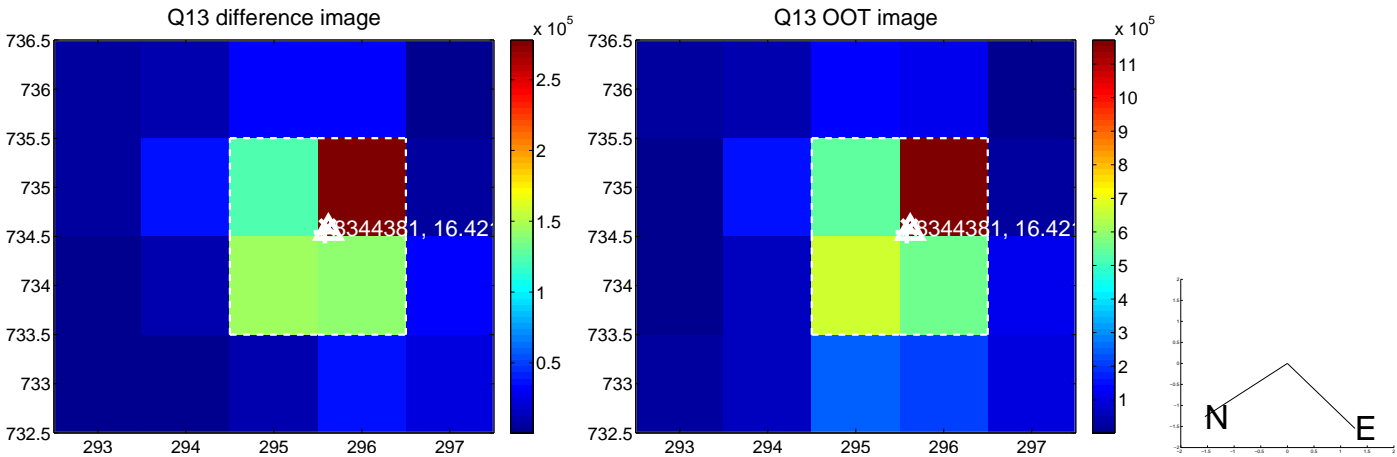
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



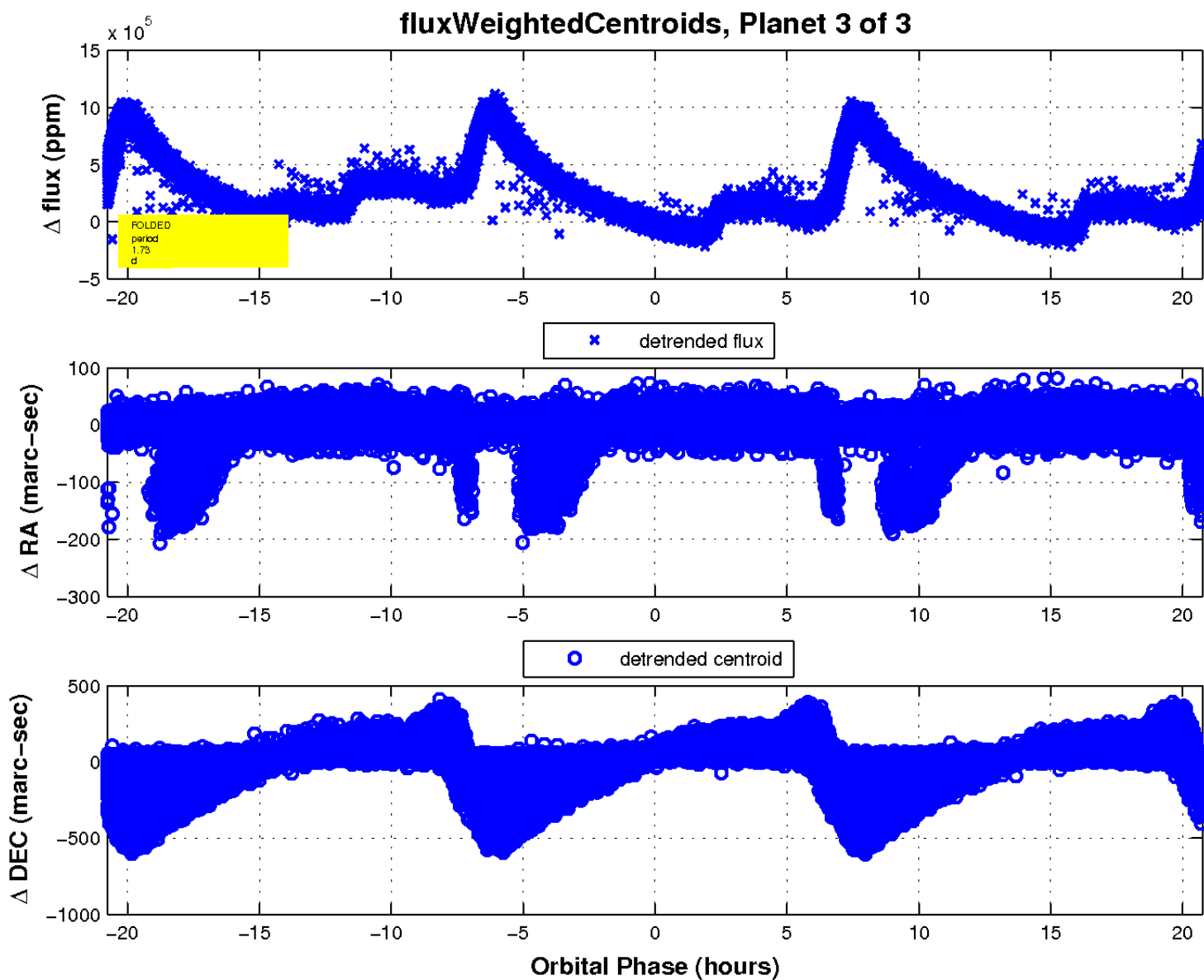
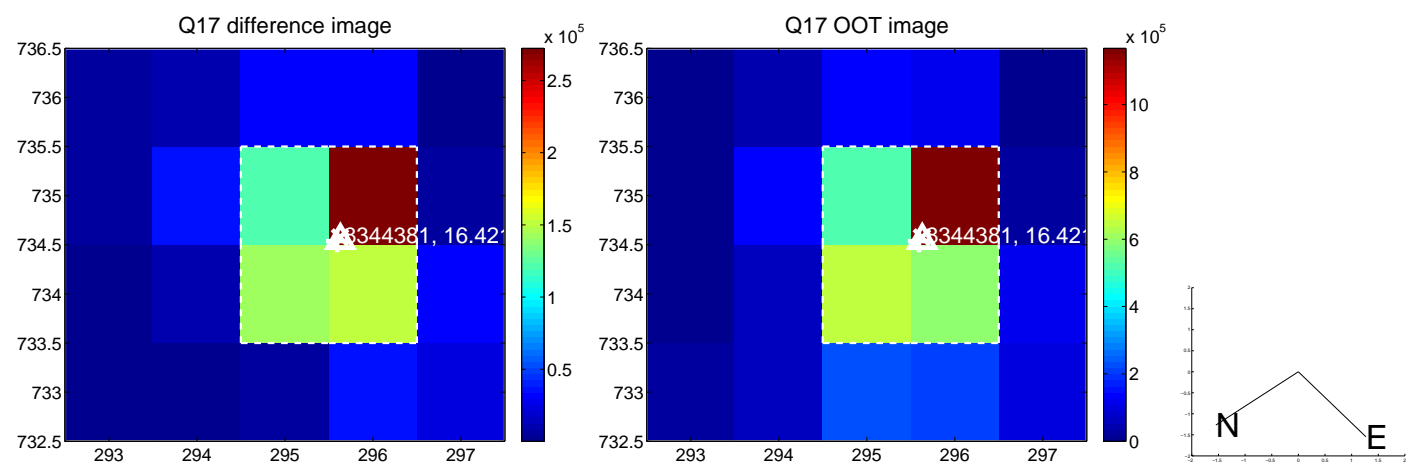
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

