

KIC 007269881

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})
007269881-01	OBS	2916.01	0.613874	131.636121	90.5	0.568	13.9	15.5	0.74	5088	0.89	1977.83
007269881-02	OBS	No	0.613876	131.941772	105.4	0.593	12.9	19.4	0.74	5088	0.78	1977.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007269881-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
007269881-02	OBS	FP	0.00	1	1	0	0	IS_SEC_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.

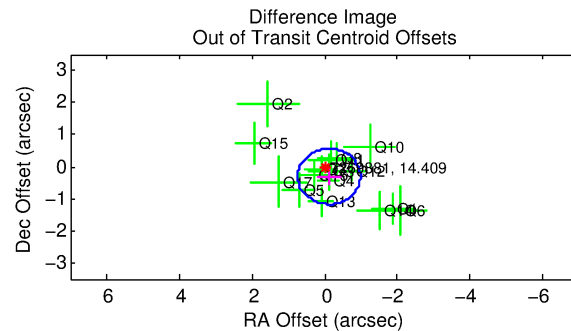
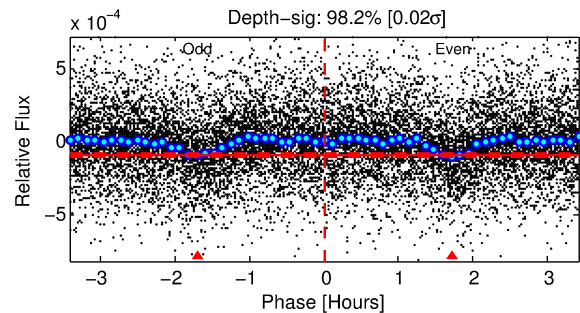
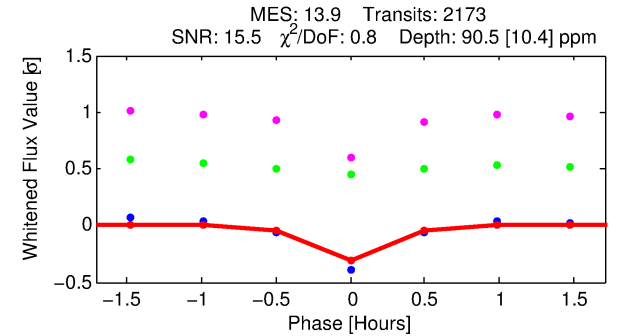
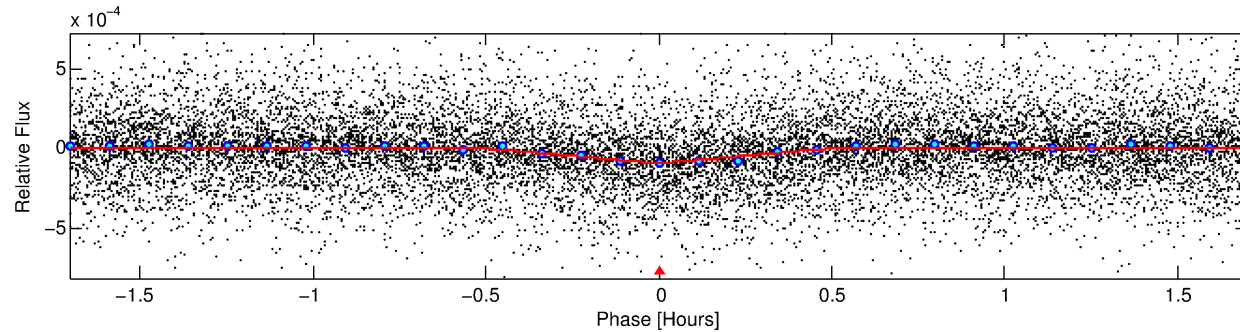
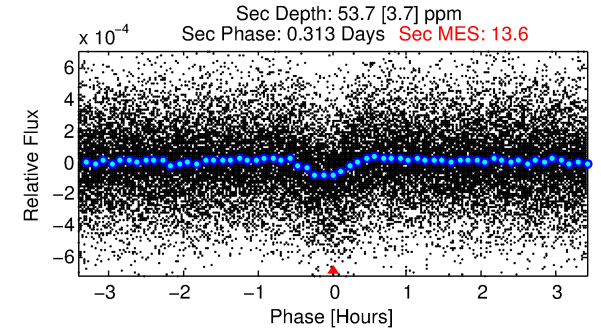
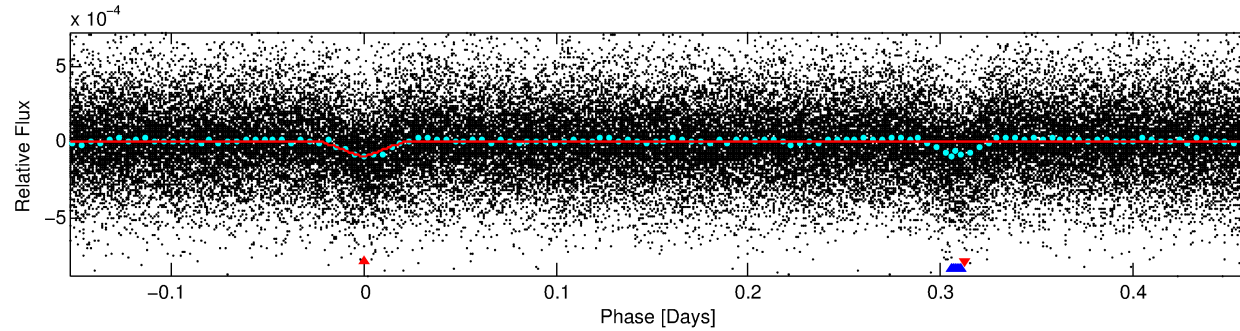
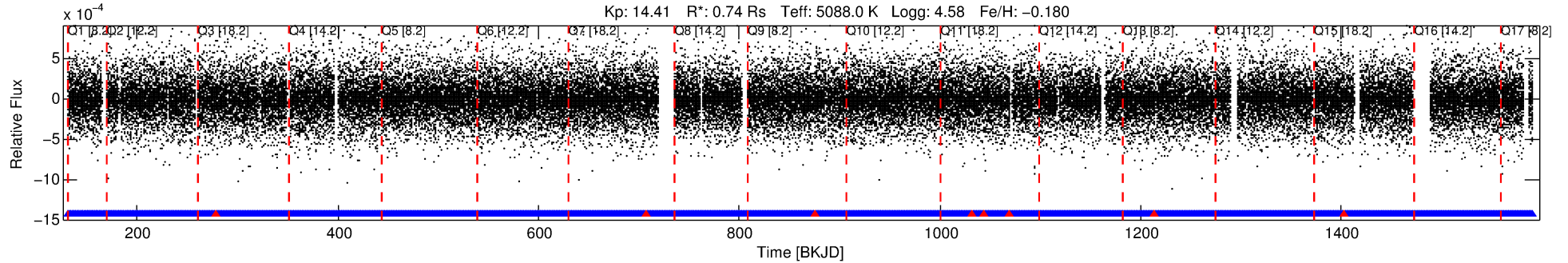
Ephemeris Match Information For 007269881-01

No Significant Match Found

DV One-Page Summary

KIC: 7269881 Candidate: 1 of 2 Period: 0.614 d
KOI: K02916 Corr: No Ephemeris Match

Kp: 14.41 R*: 0.74 Rs Teff: 5088.0 K Logg: 4.58 Fe/H: -0.180



DV Fit Results:

Period = 0.61387 [0.00001] d
Epoch = 131.6361 [0.0008] BKJD
Rp/R* = 0.0110 [0.0029]
a/R* = 3.96 [4.00]
b = 0.90 [0.24]
Seff = 1977.83 [334.17]
Teq = 1700 [72] K
Rp = 0.89 [0.25] Re
a = 0.0129 [0.0011] AU
Ag = 6.25 [3.40] [1.54σ]
Teffp = 4157 [565] K [4.31σ]

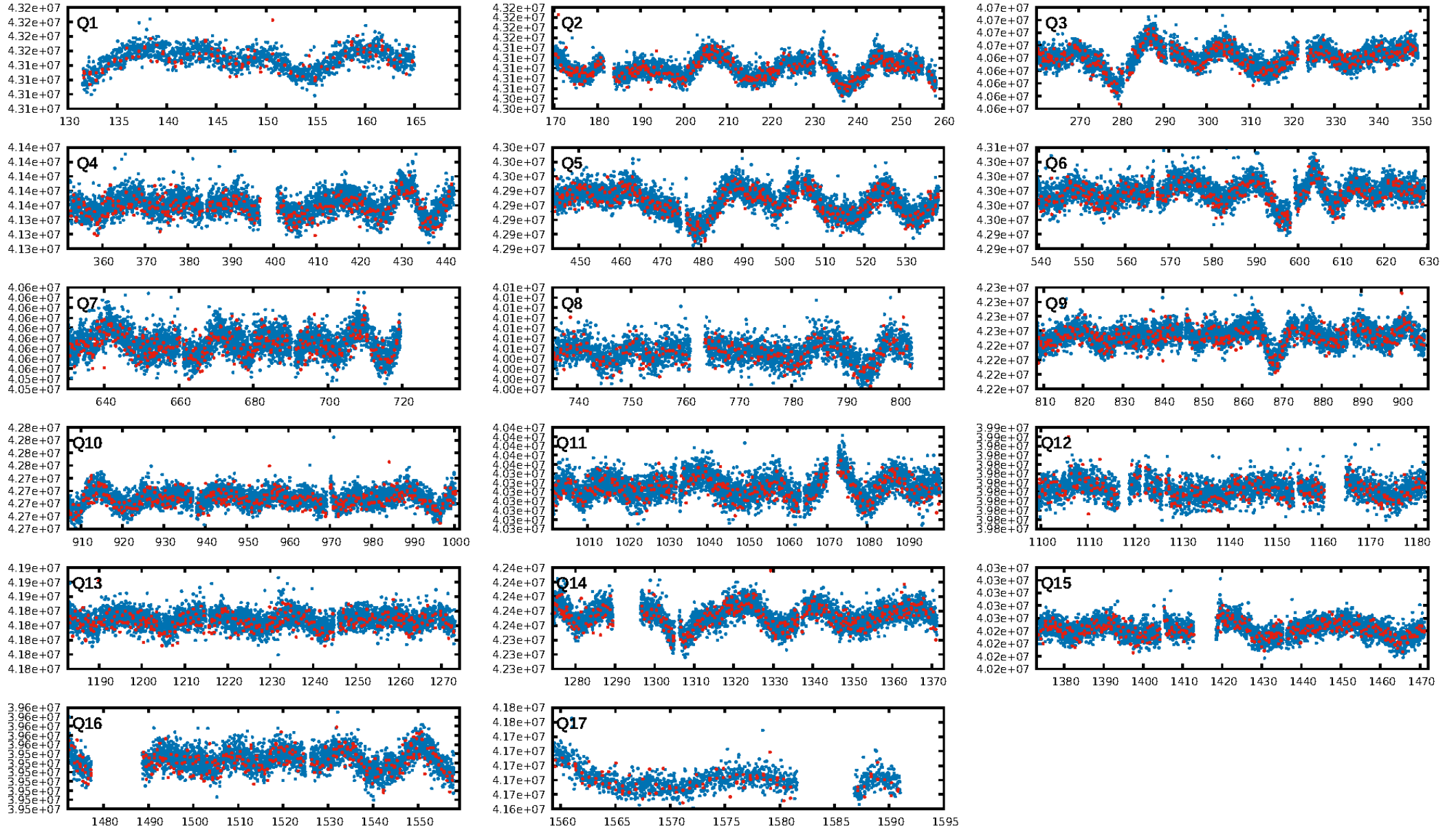
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.31e-48
RollingBand-fgt: 1.00 [2066/2074]
GhostDiagnostic-chr: 2.809
Centroid-sig: 1.3%
Centroid-so: 1.817 arcsec [2.86σ]
OotOffset-rm: 0.330 arcsec [1.15σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-rm: 0.445 arcsec [2.15σ]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

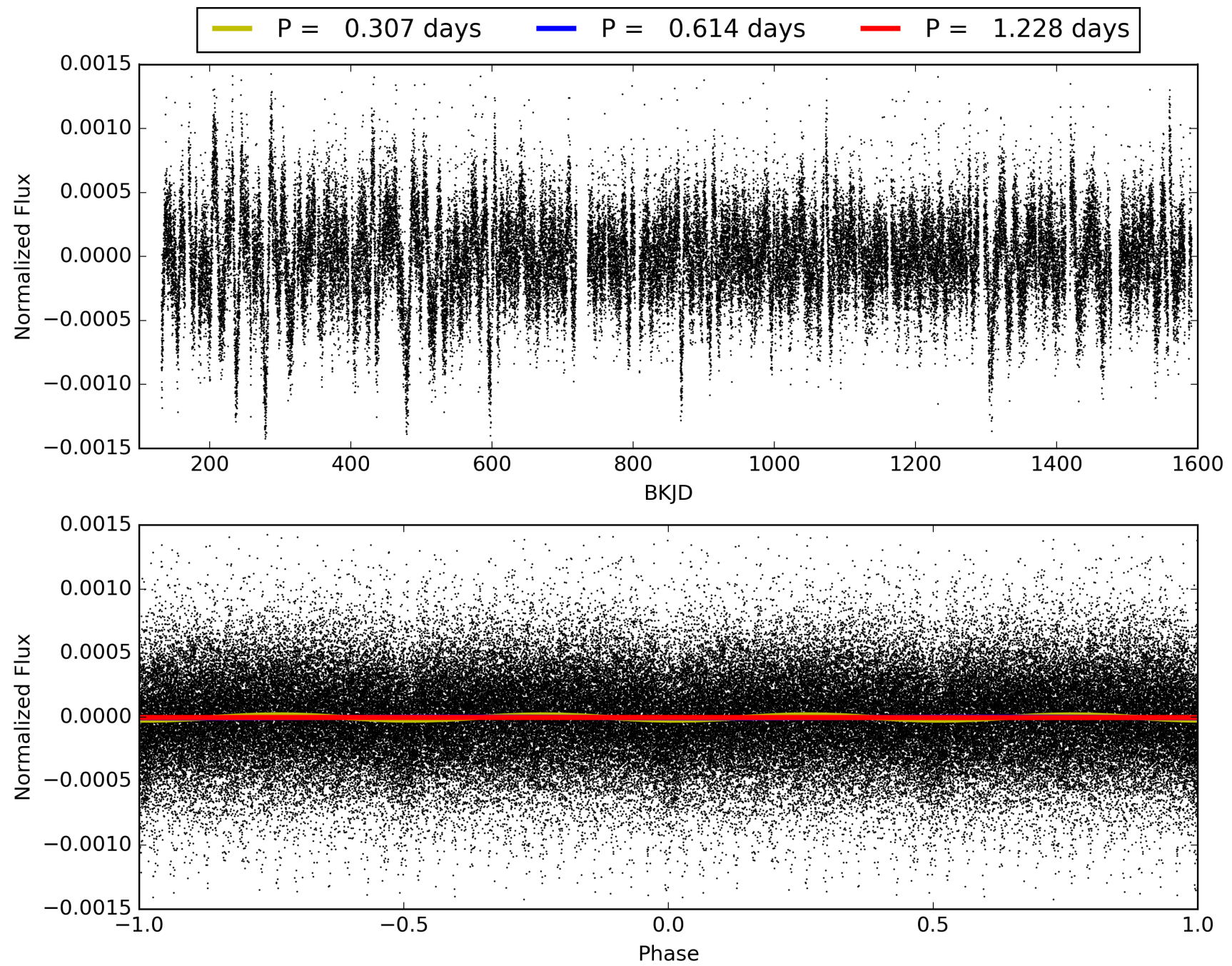
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 09:14:36 Z

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

TCE 007269881-01, PDC Light Curves

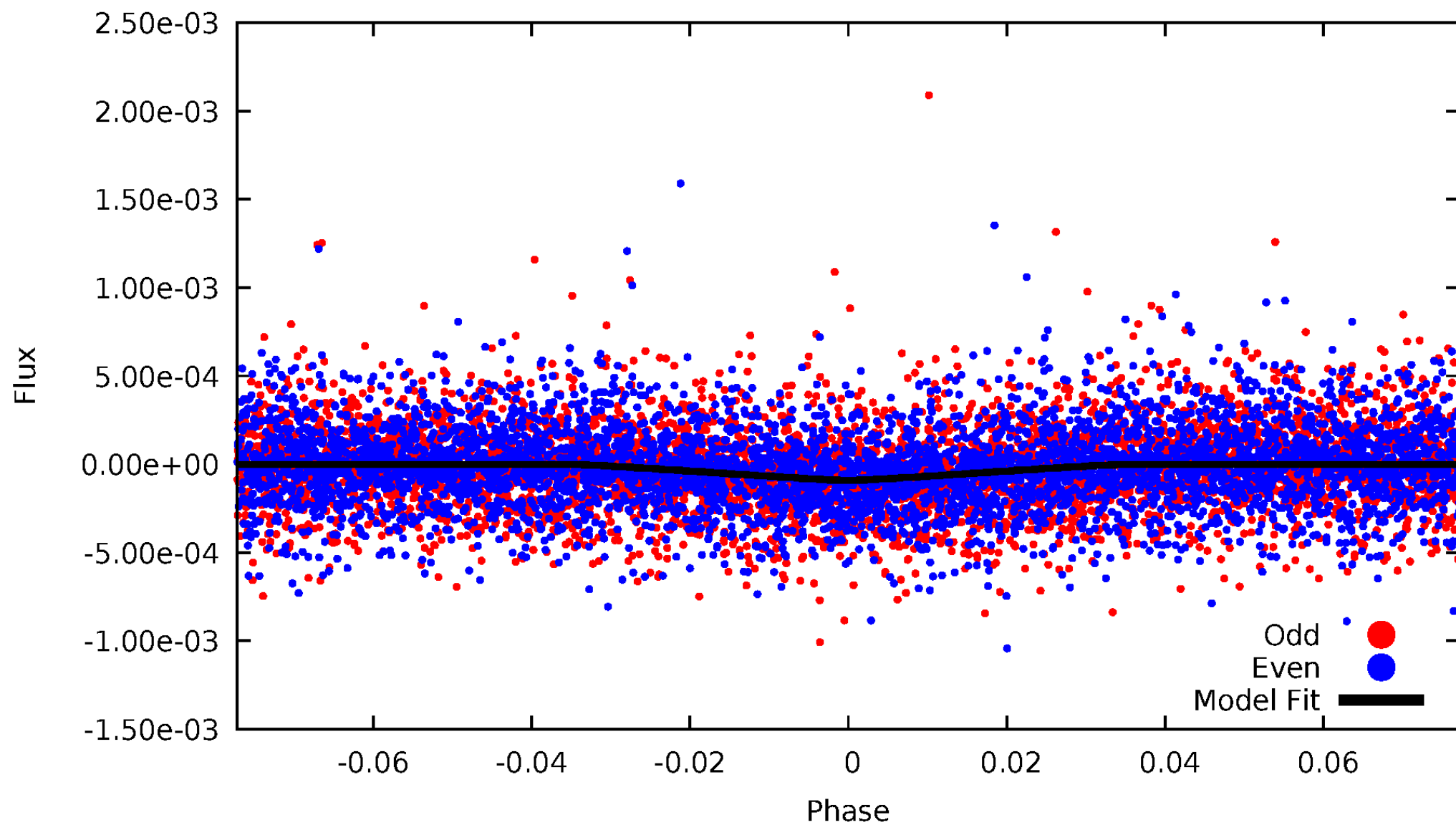


TCE 007269881-01



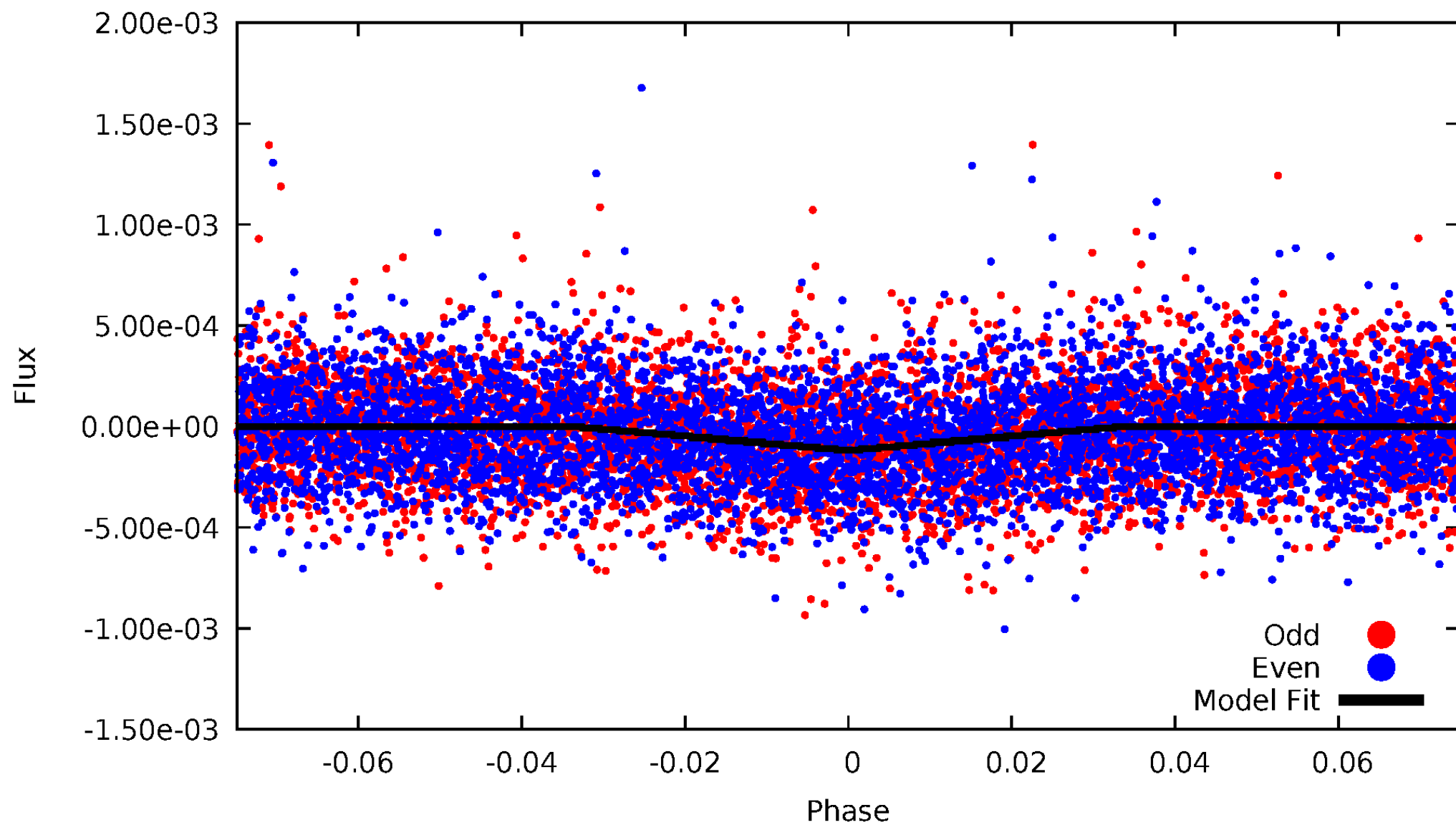
DV Odd/Even

TCE 007269881-01

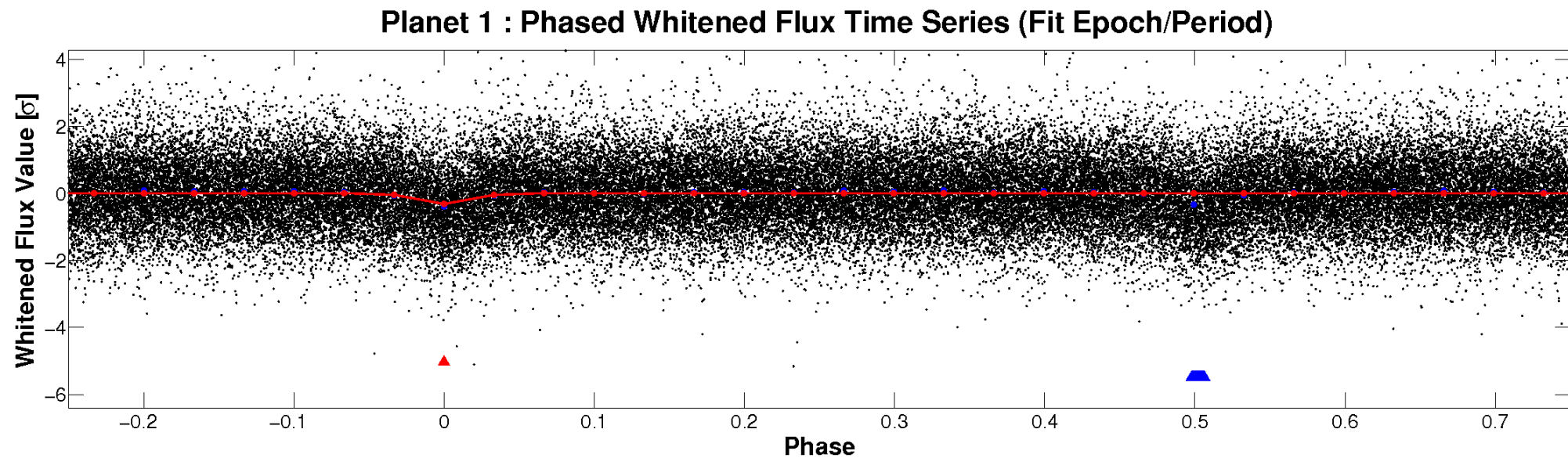
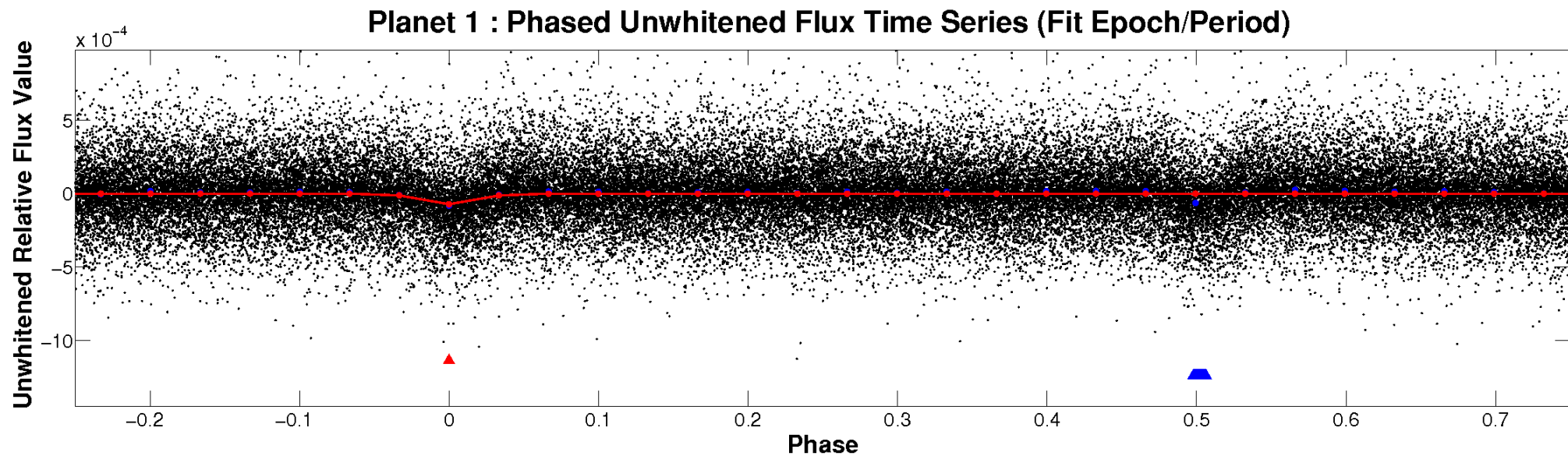


ALT Odd/Even

TCE 007269881-01

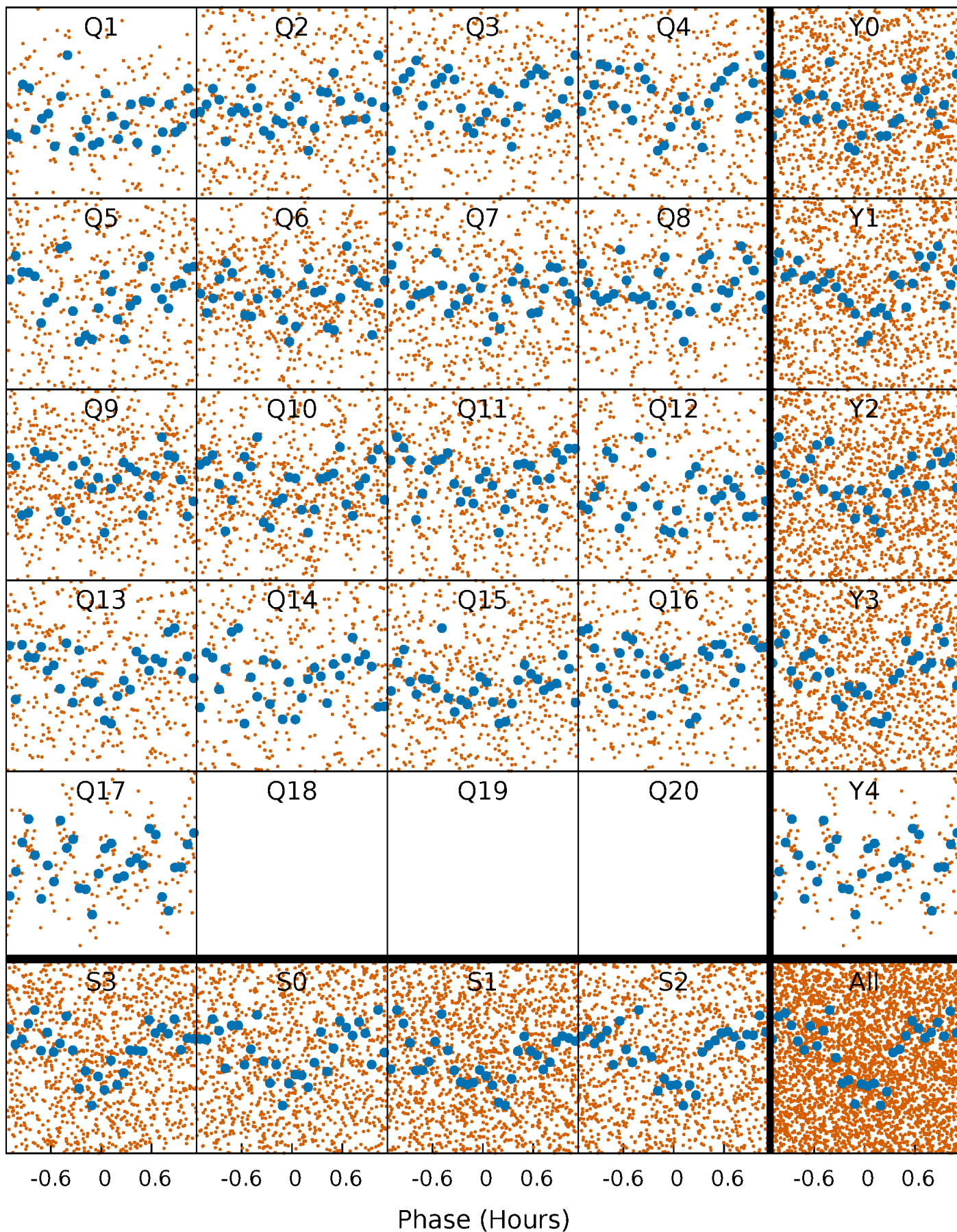


Non-Whitened Vs. Whitened Light Curve



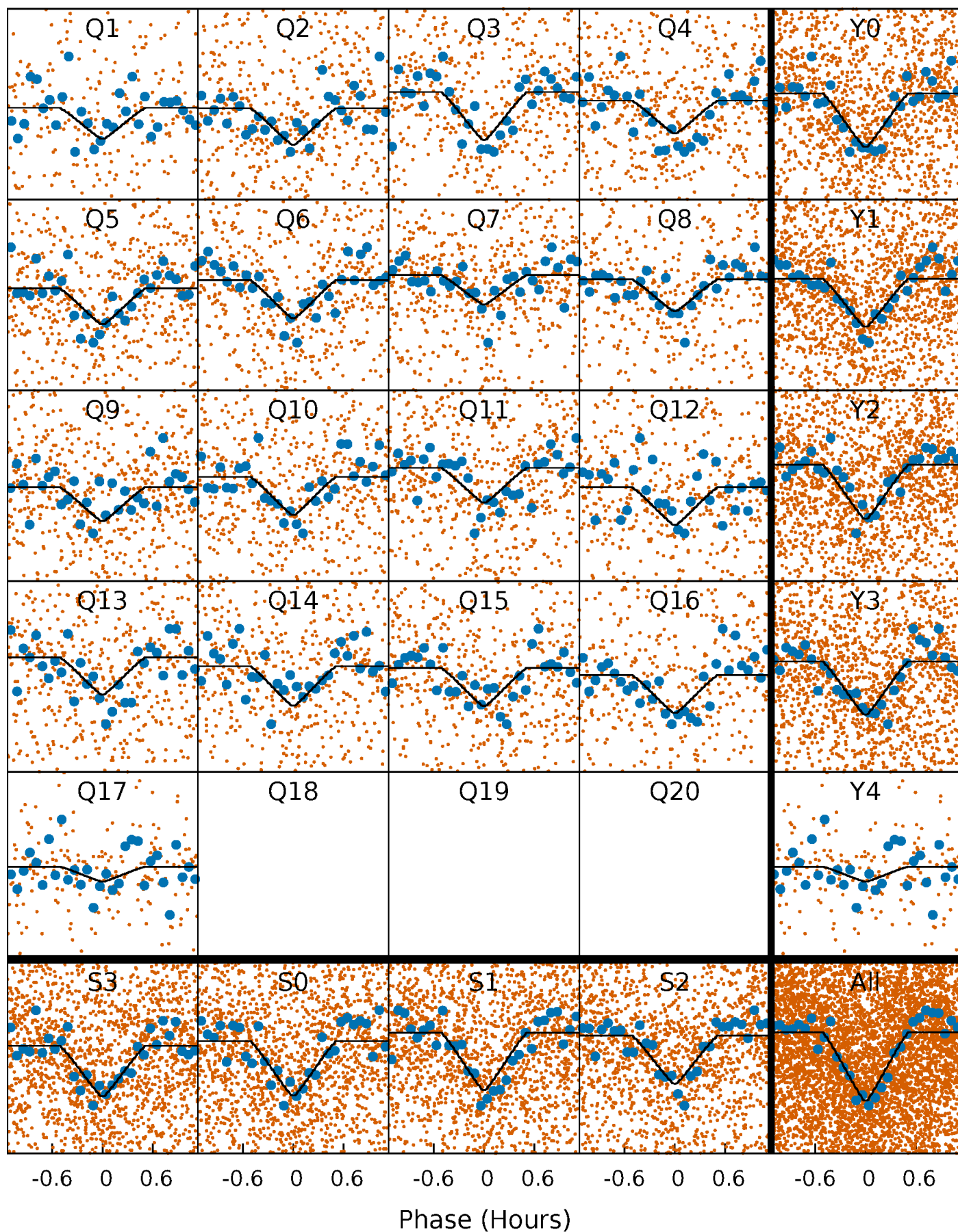
PDC Quarter-Phased Transit Curves

TCE 007269881-01 P= 0.613874 Days $T_0=131.636121$ (BKJD)



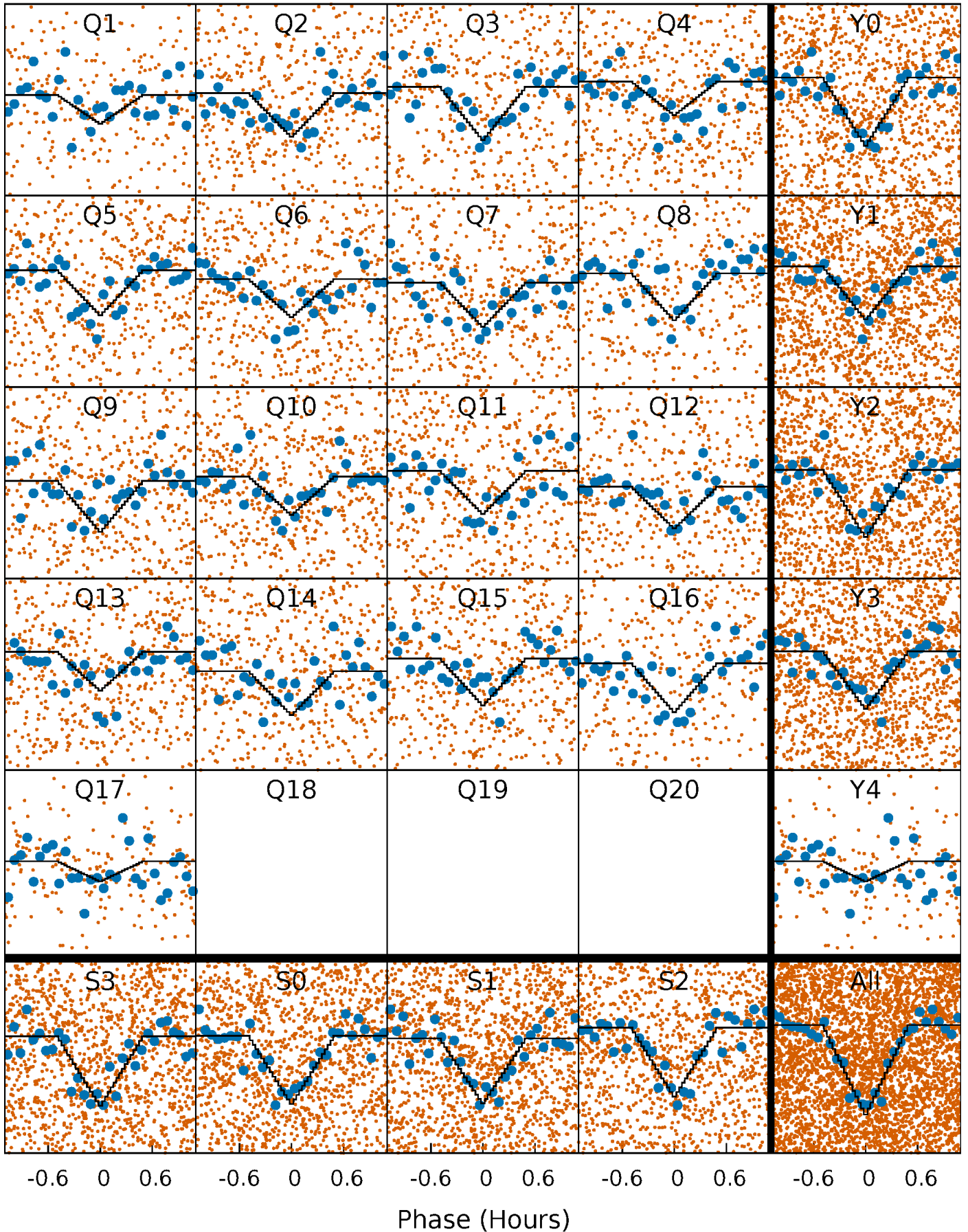
DV Quarter-Phased Transit Curves

TCE 007269881-01 P= 0.613874 Days $T_0=131.636121$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

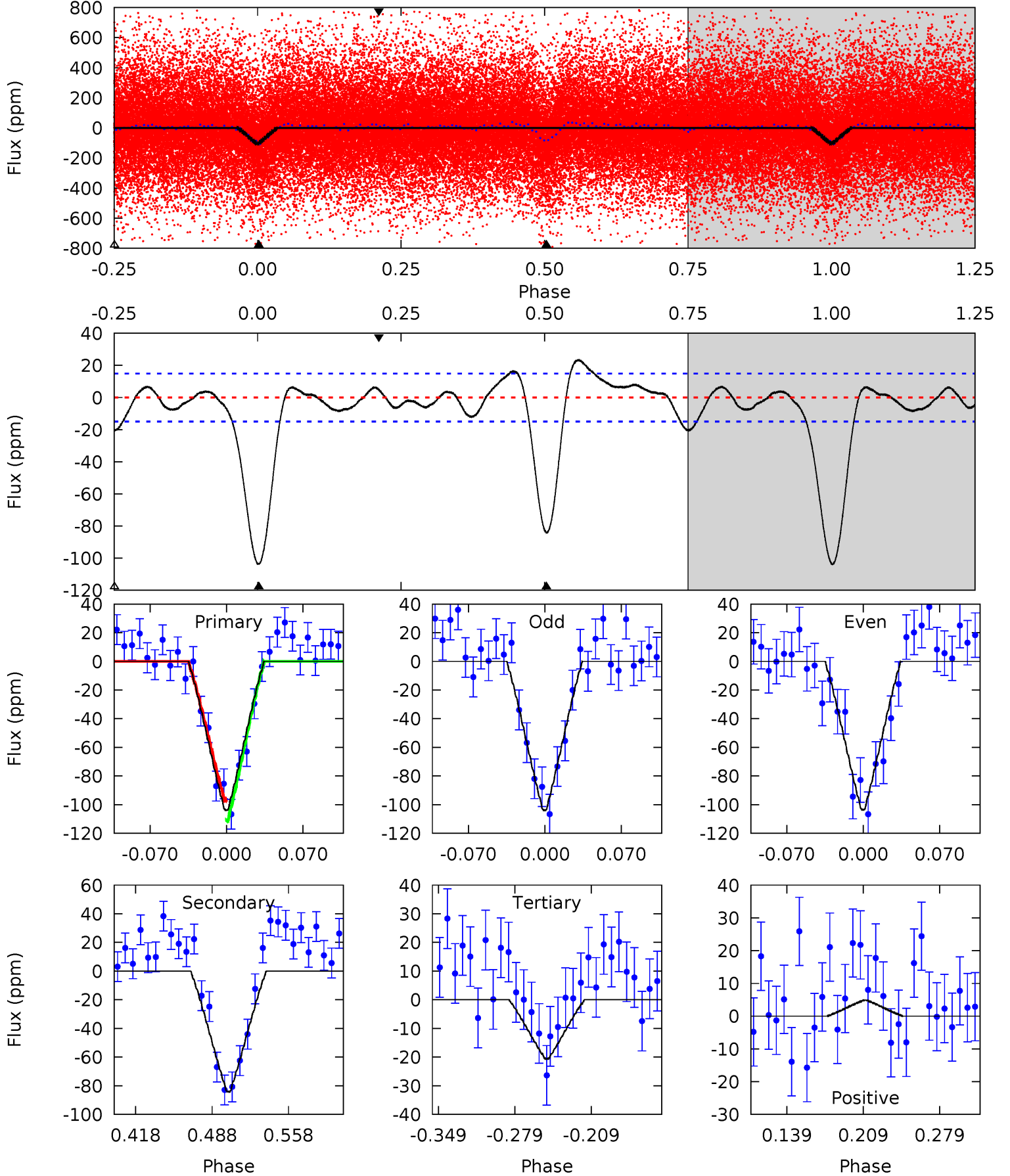
TCE 007269881-01 P= 0.613875 Days $T_0=131.636094$ (BKJD)



DV Model-Shift Uniqueness Test

007269881-01, P = 0.613874 Days, E = 131.022247 Days

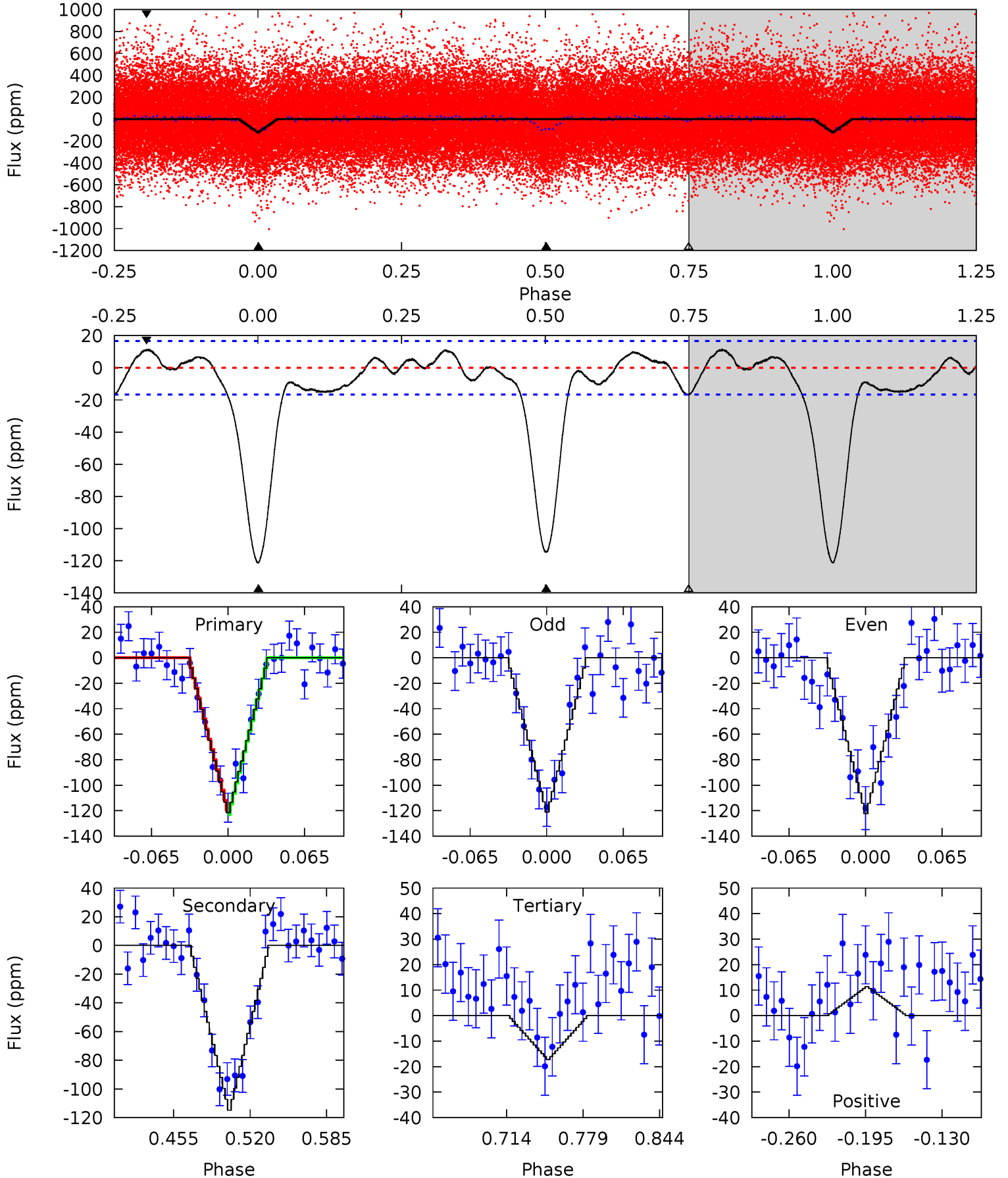
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.3	26.2	6.40	1.51	4.64	1.81	2.25	25.9	30.8	19.8	24.7	0.06	0.97	0.18	2.21



Alt Model-Shift Uniqueness Test

007269881-01, P = 0.613875 Days, E = 131.022219 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.9	32.0	4.80	3.17	4.65	1.85	2.11	29.1	30.7	27.2	28.9	0.18	0.98	0.09	0.44



Stellar Parameters For KIC 007269881

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5088^{+153}_{-138}	$4.580^{+0.044}_{-0.061}$	$-0.180^{+0.300}_{-0.300}$	$0.741^{+0.081}_{-0.066}$	$0.762^{+0.088}_{-0.066}$	$2.641^{+0.574}_{-0.564}$
	+3%/-3%	+1%/-1%	+167%/-167%	+11%/-9%	+12%/-9%	+22%/-21%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007269881-01 / KOI 2916.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-84 ± 3	$0.89^{+0.26}_{-0.24}$	2391^{+93}_{-77}	4710^{+625}_{-459}	$9.711^{+7.836}_{-3.791}$
Alt.	-115 ± 4	$0.89^{+0.24}_{-0.25}$	2390^{+84}_{-83}	5044^{+819}_{-504}	13^{+12}_{-5}

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

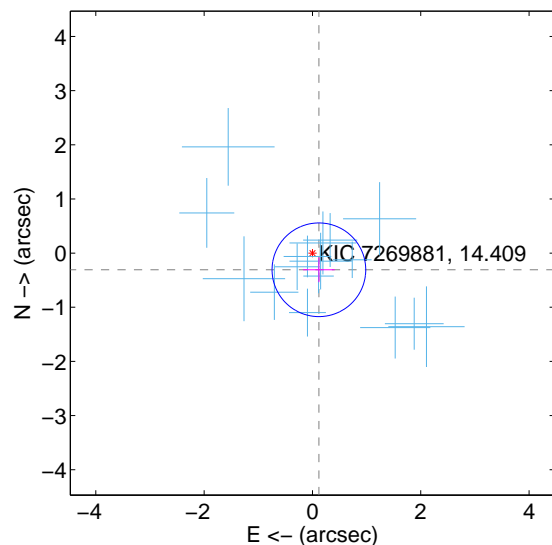
Supplemental centroid analysis for 007269881-01. Kepler magnitude: 14.41. Transit SNR 15.49

There are 16 quarters with good PRF difference image offsets

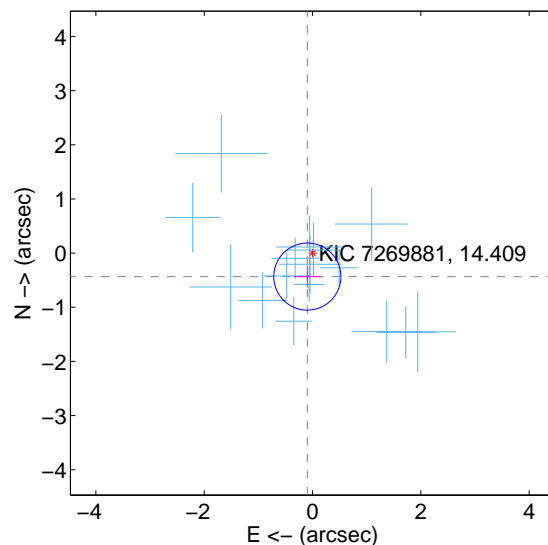
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.330 ± 0.288	1.15	-0.119 ± 0.293	-0.308 ± 0.228
PRF-fit source offset from KIC position	0.445 ± 0.206	2.15	0.096 ± 0.254	-0.434 ± 0.204
photometric centroid source offset	1.82 ± 0.64	2.86	1.82 ± 0.64	0.07 ± 0.74

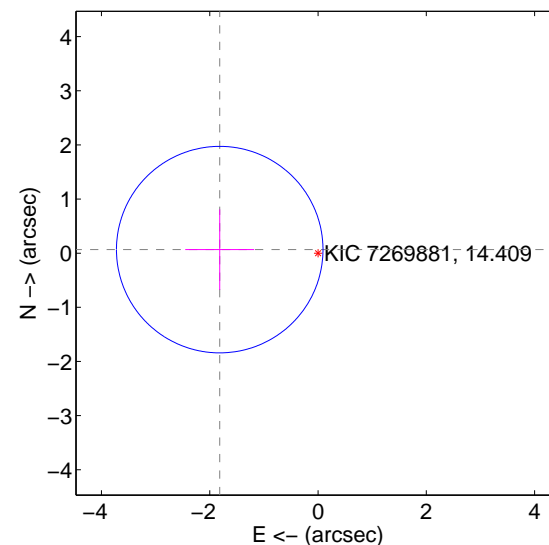
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

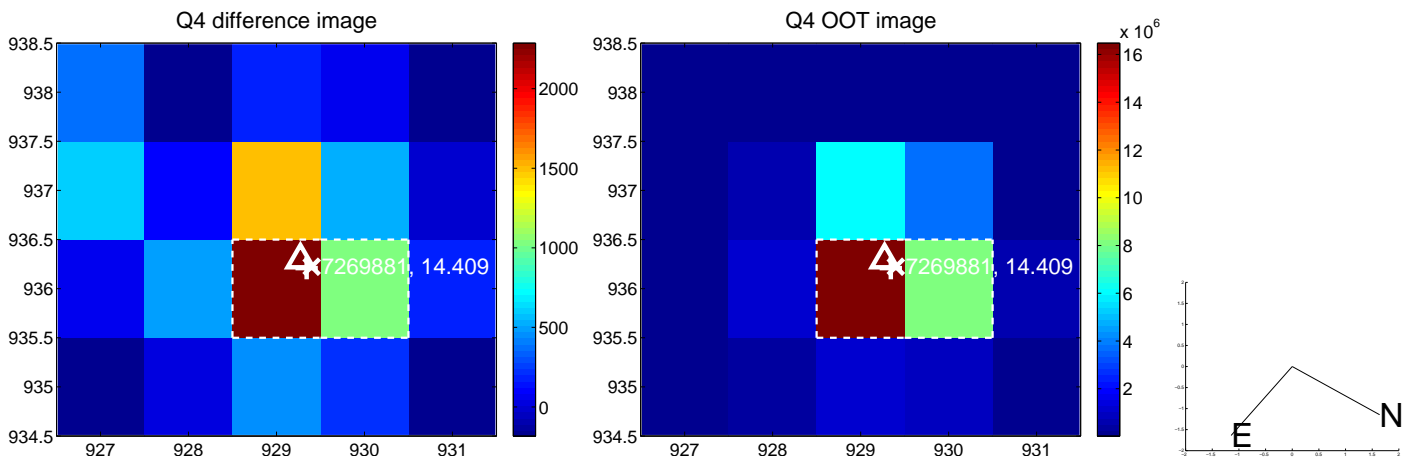
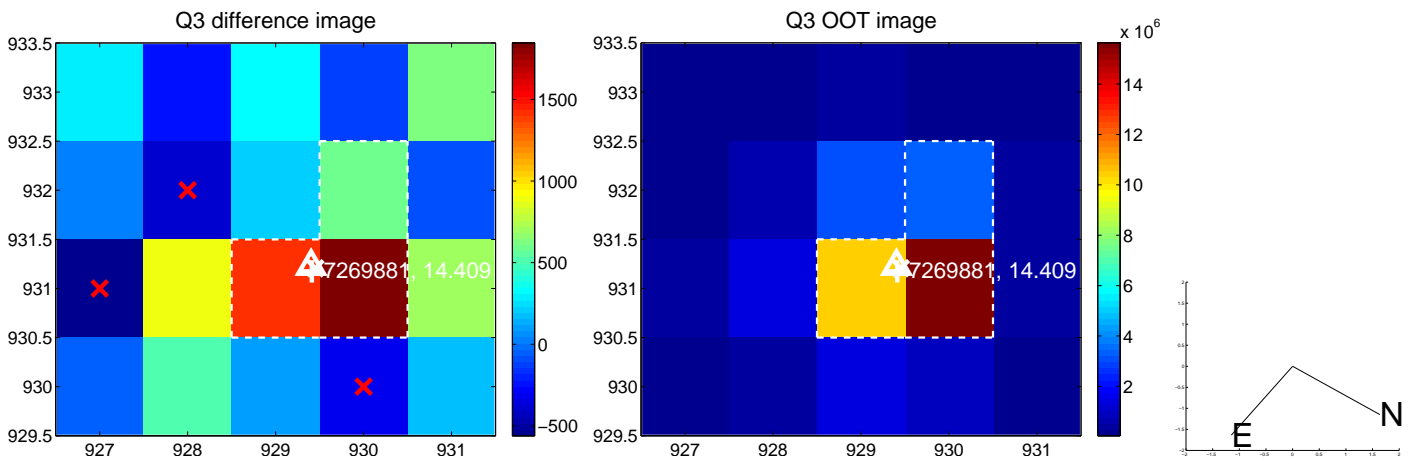
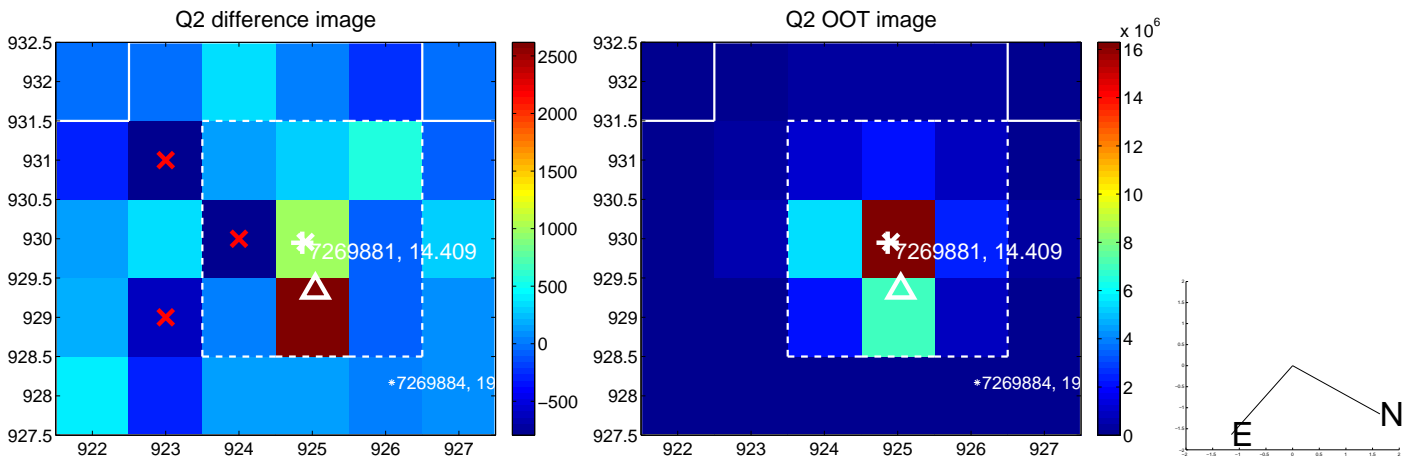
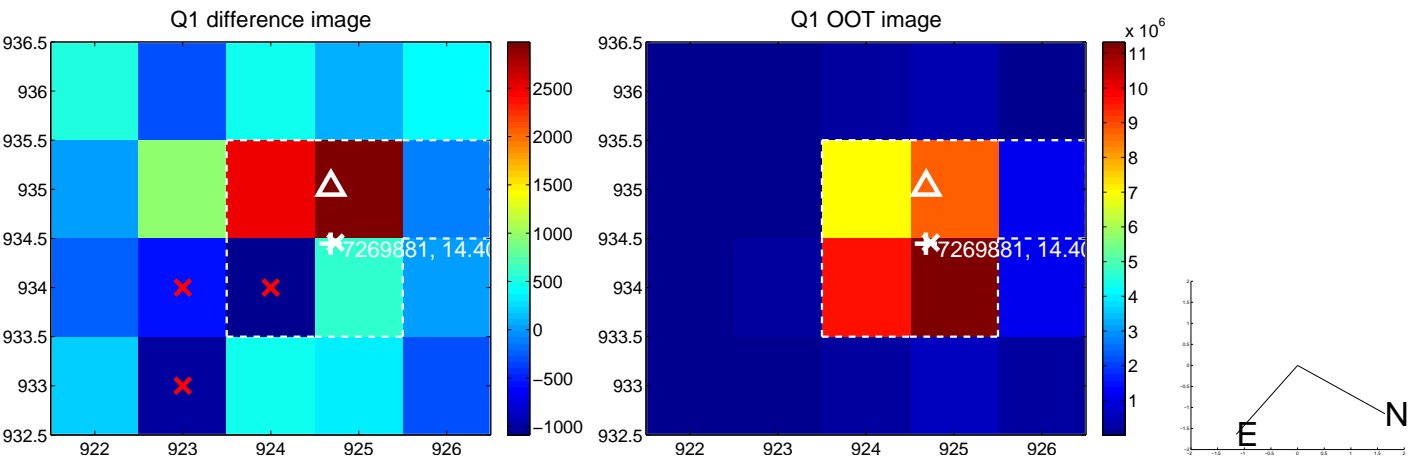


offset from photometric centroids

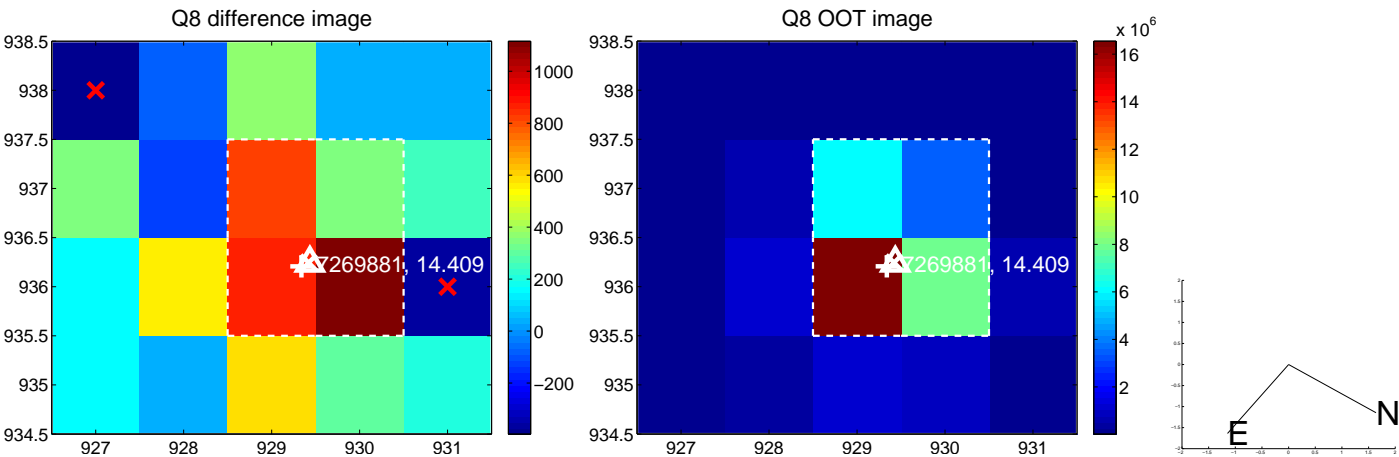
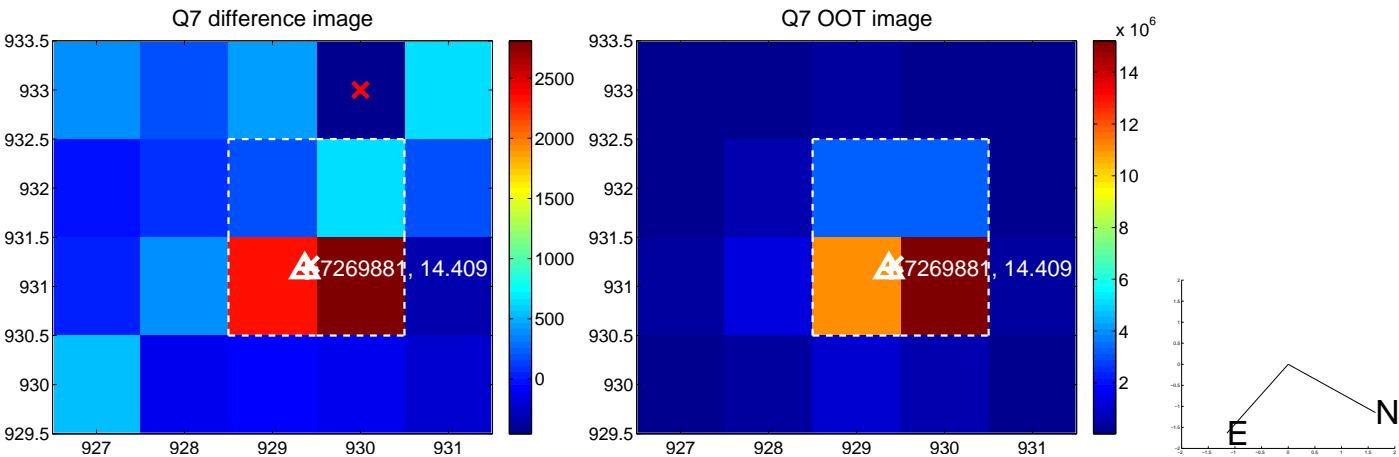
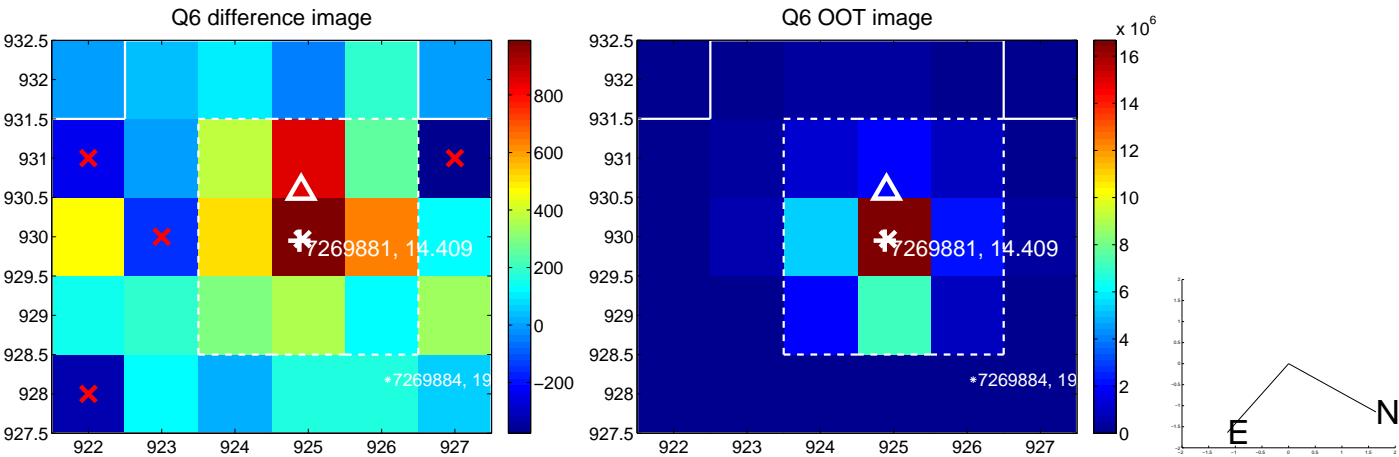
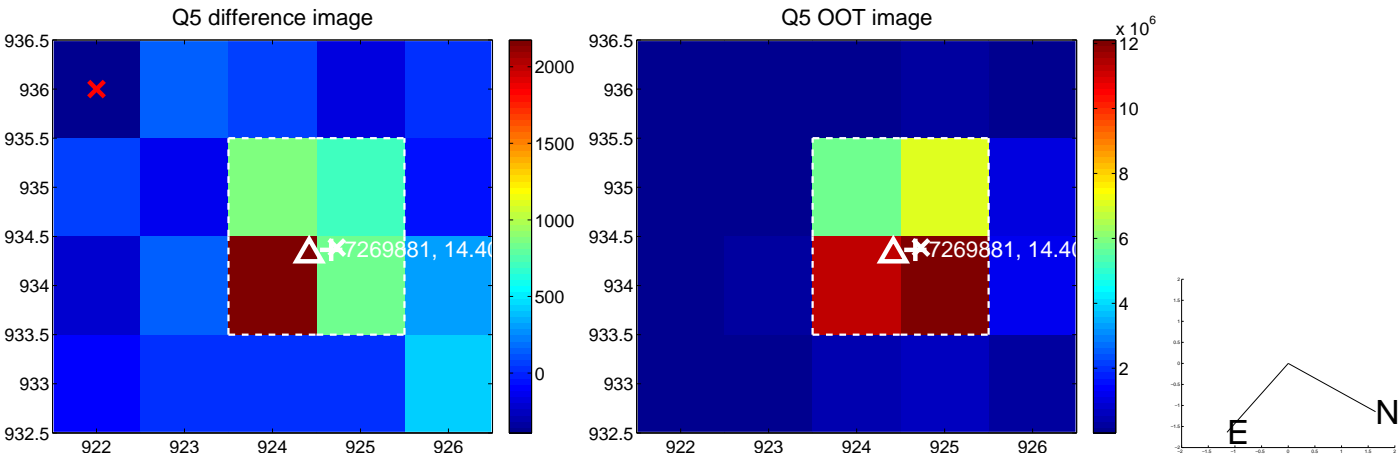


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

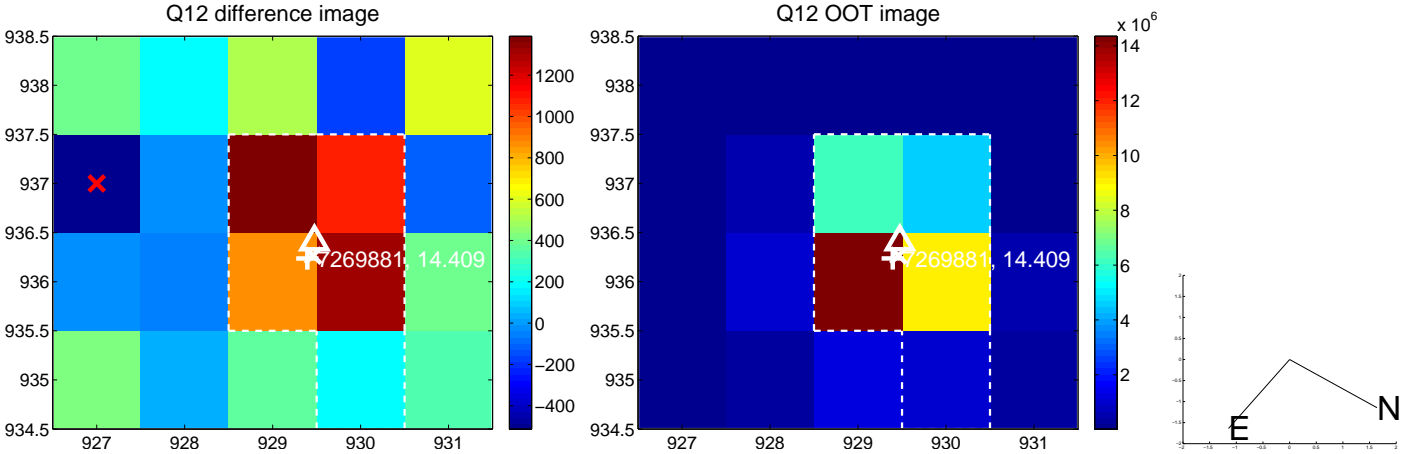
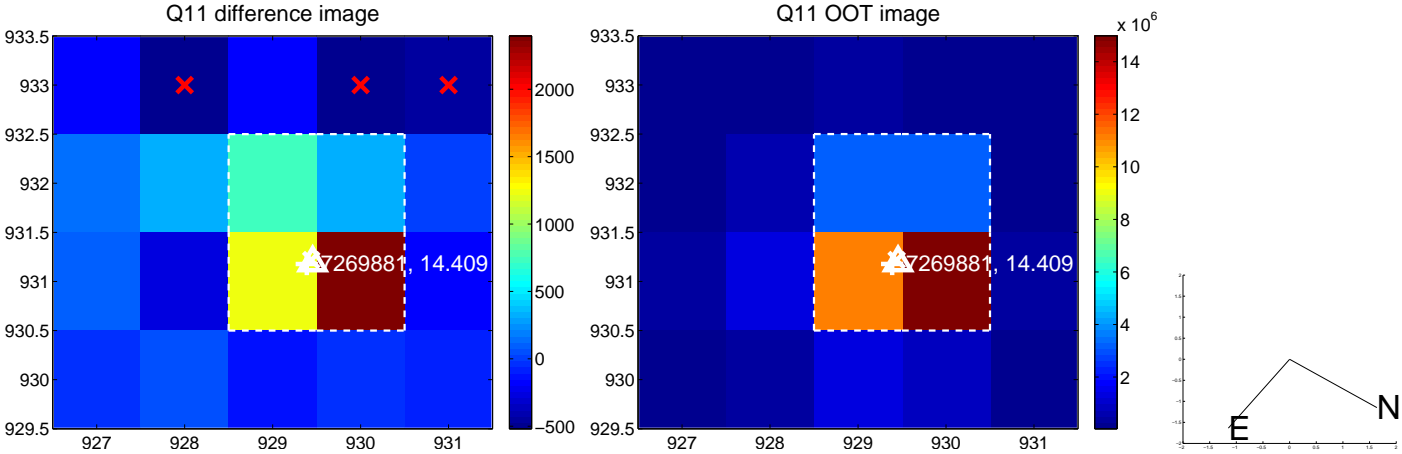
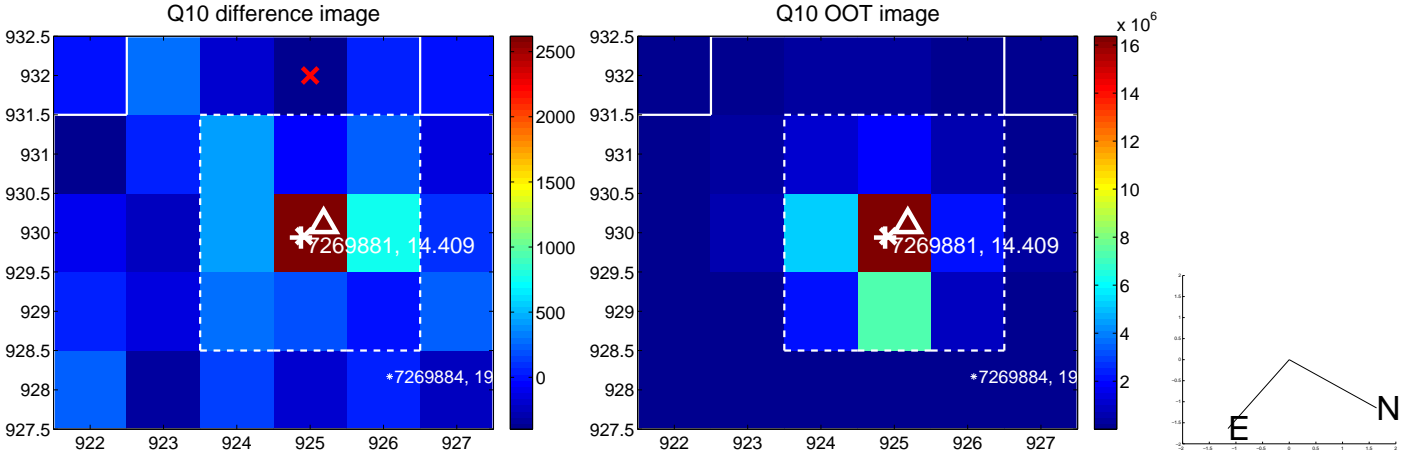
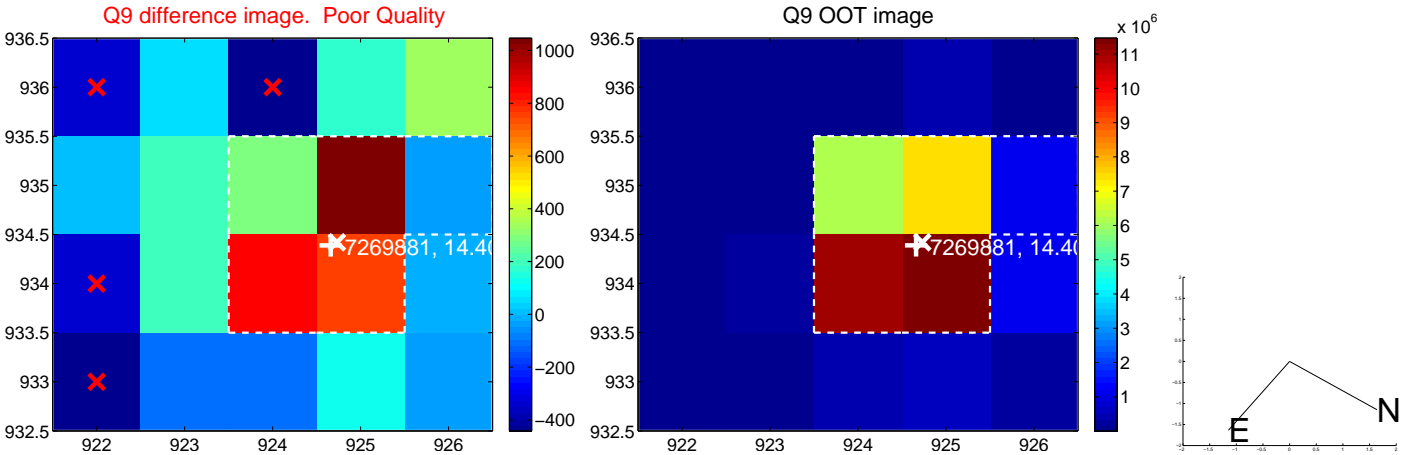
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



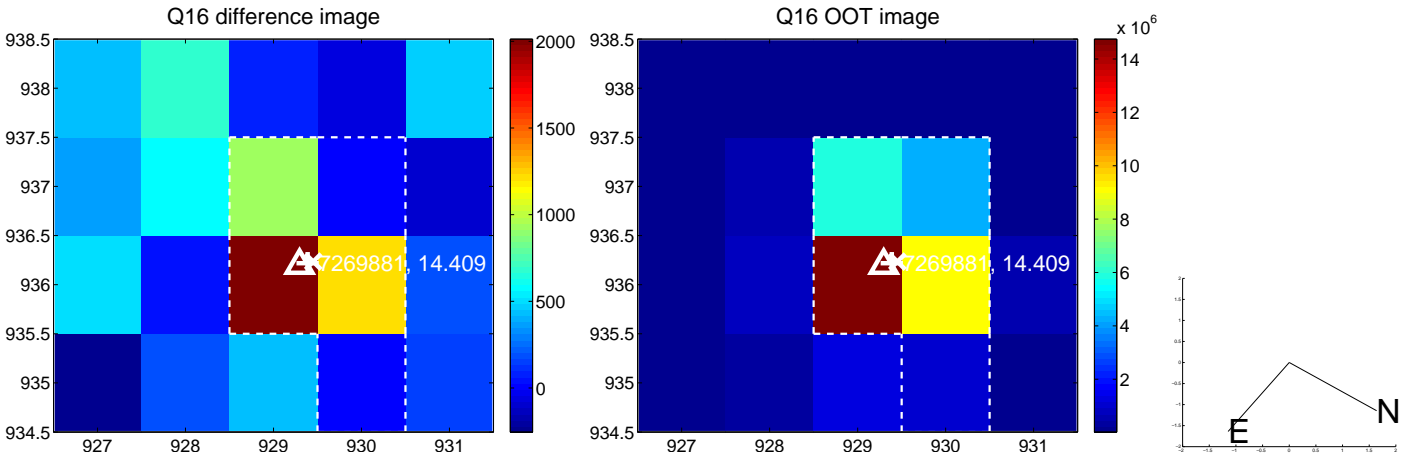
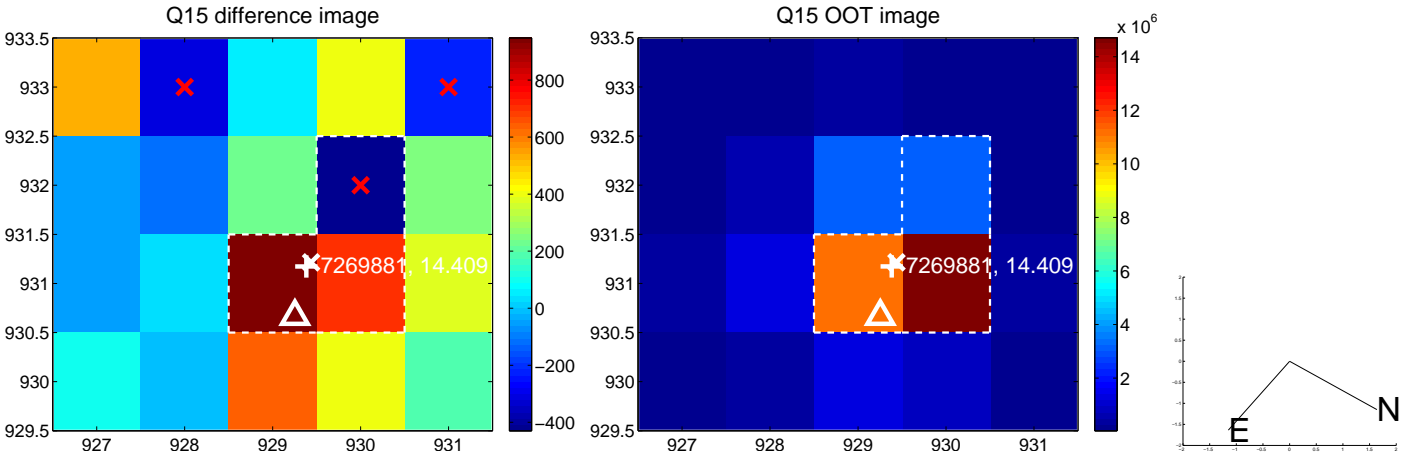
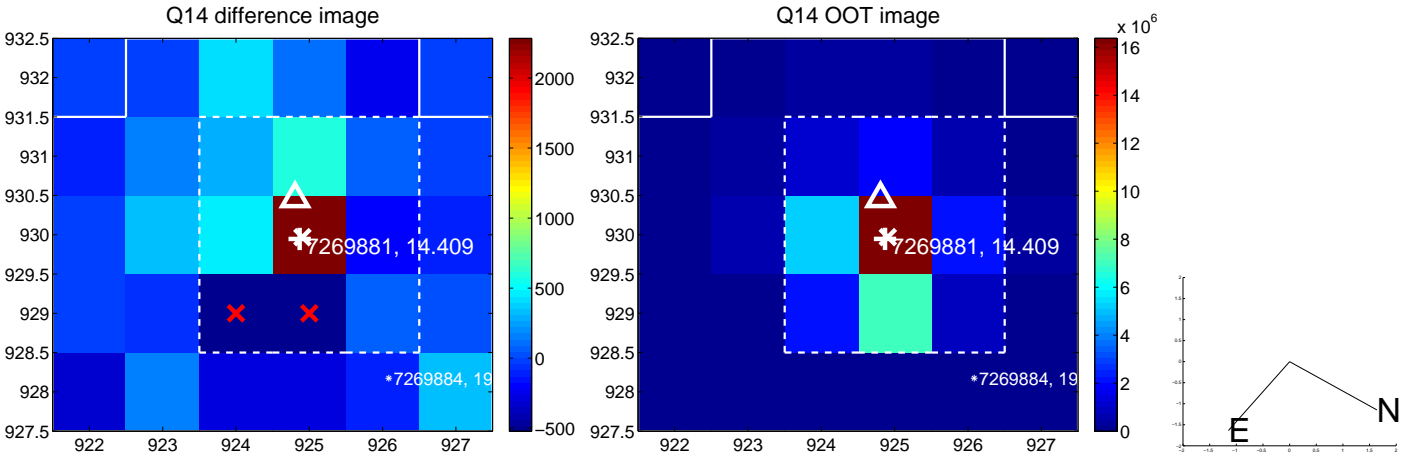
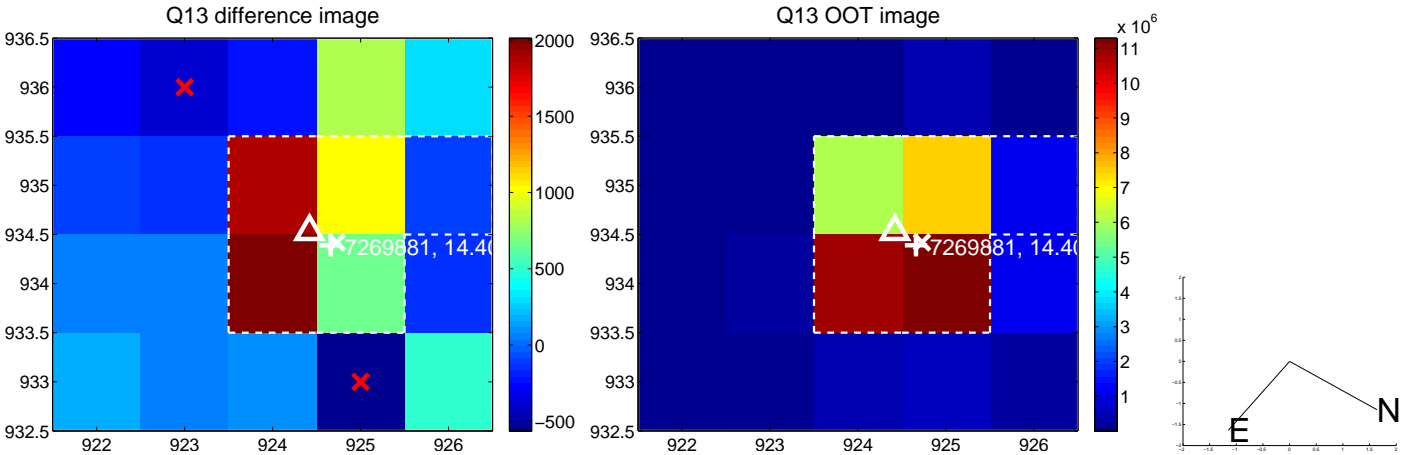
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



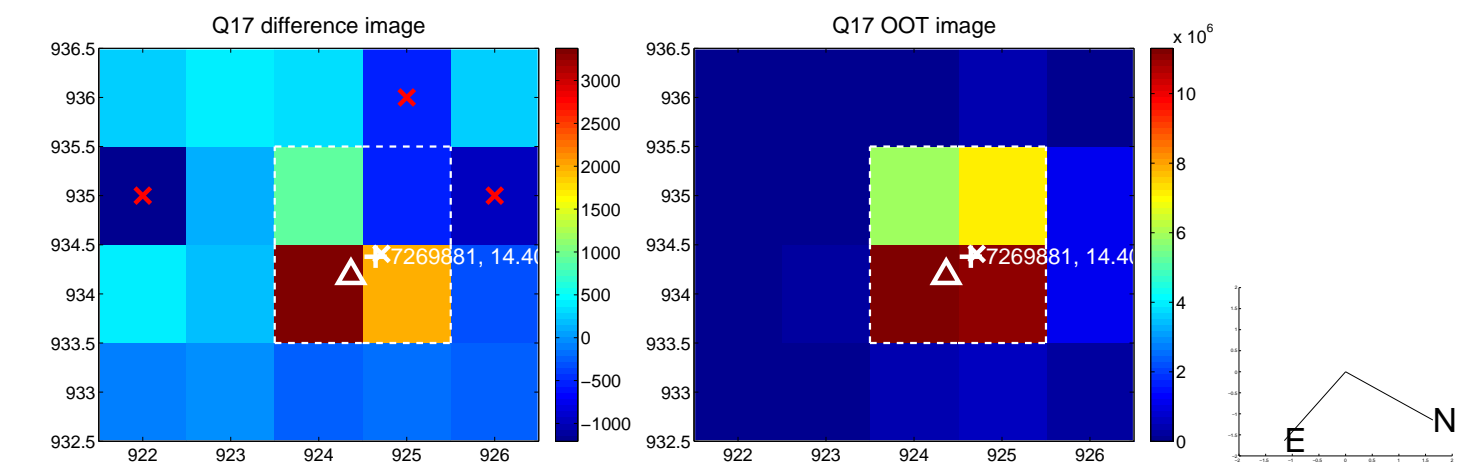
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



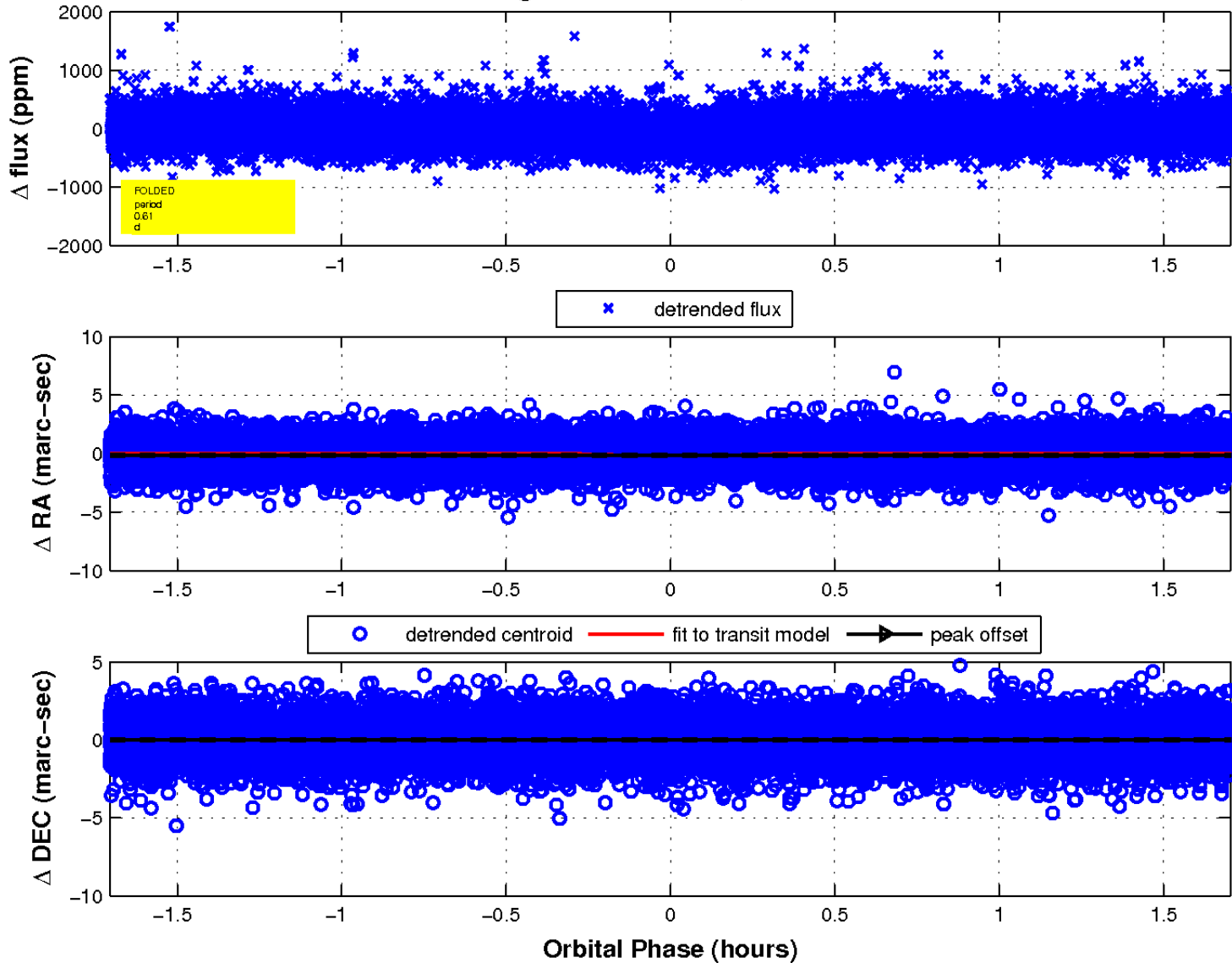
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

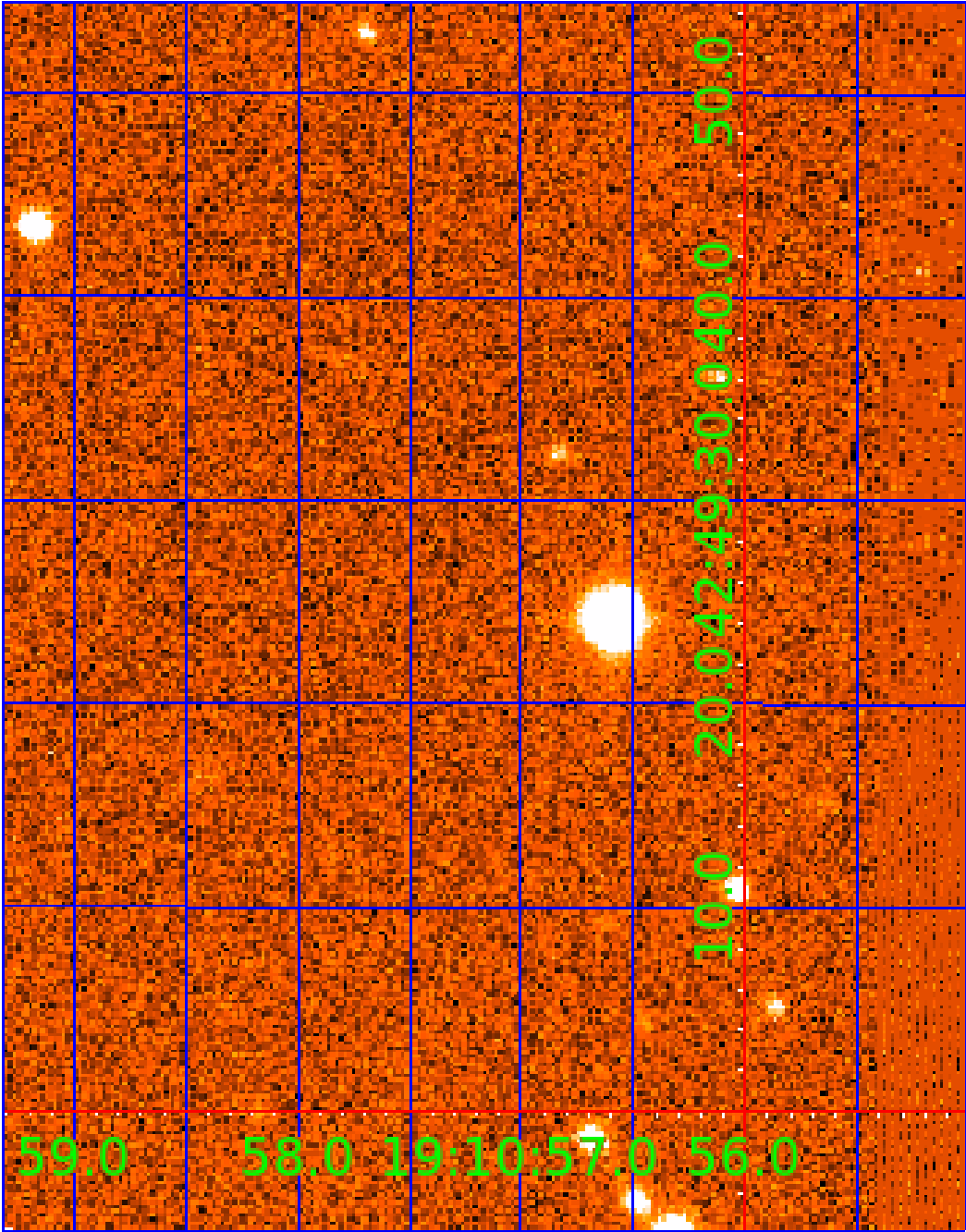


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 007269881

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})
007269881-01	OBS	2916.01	0.613874	131.636121	90.5	0.568	13.9	15.5	0.74	5088	0.89	1977.83
007269881-02	OBS	No	0.613876	131.941772	105.4	0.593	12.9	19.4	0.74	5088	0.78	1977.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007269881-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
007269881-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE

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

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

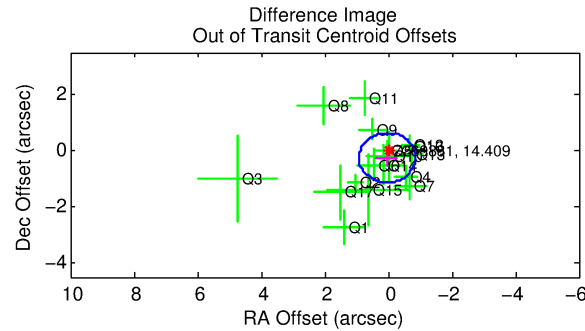
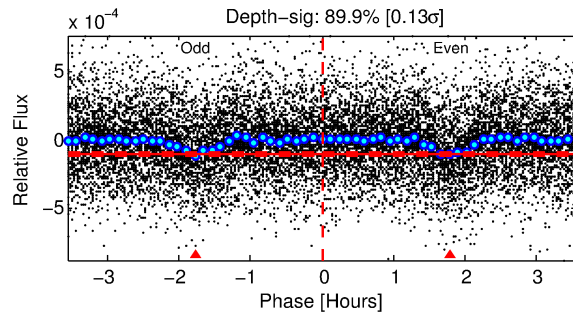
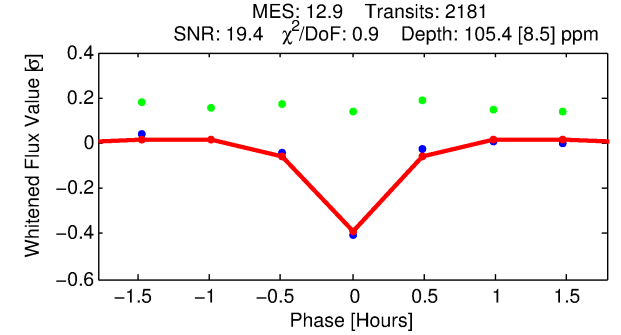
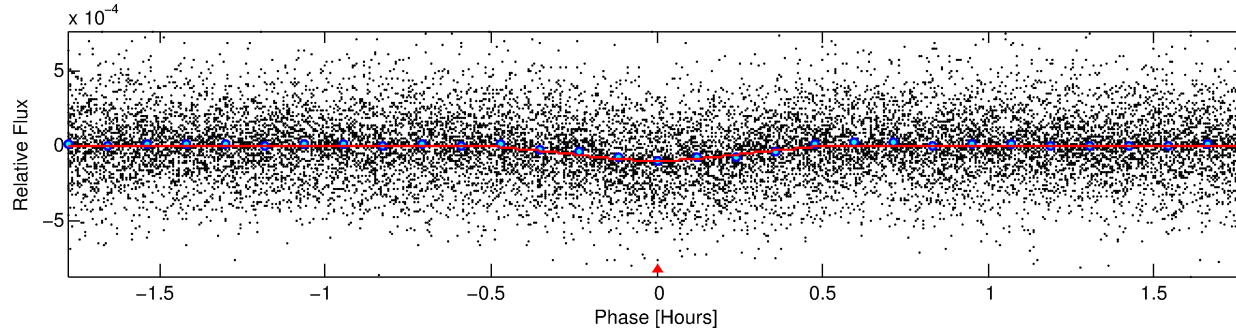
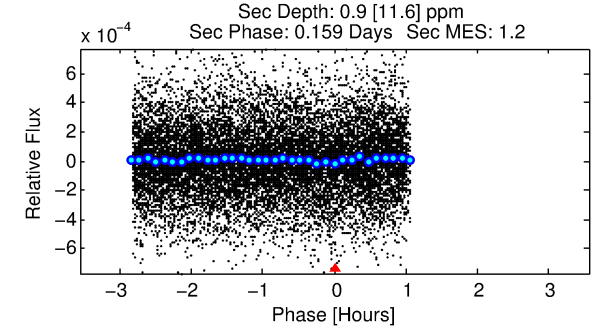
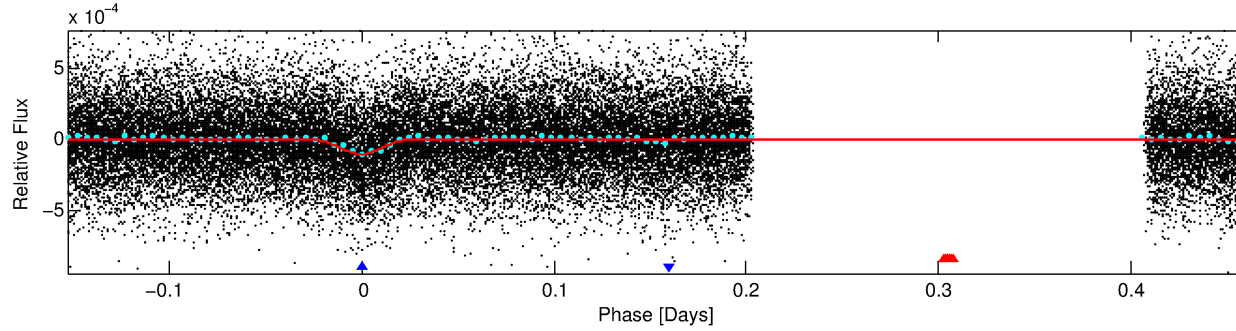
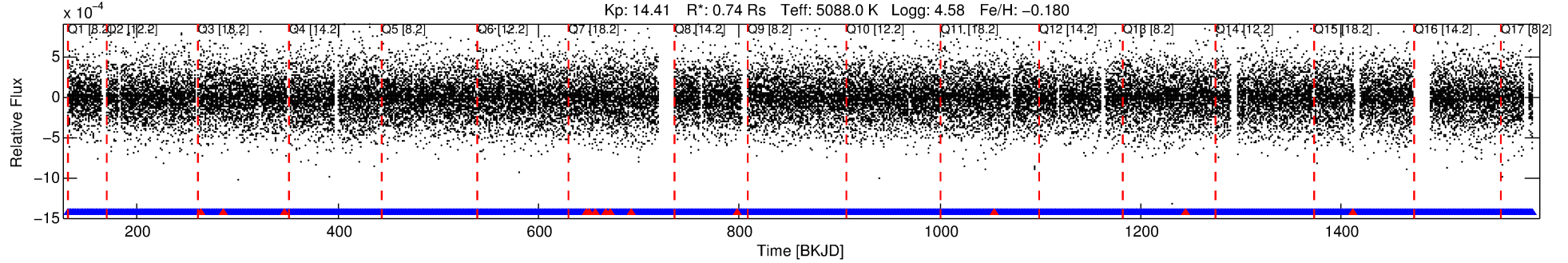
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007269881-02

No Significant Match Found

DV One-Page Summary

KIC: 7269881 Candidate: 2 of 2 Period: 0.614 d
KOI: K02916 Corr: No Ephemeris Match



DV Fit Results:

Period = 0.61388 [0.00001] d
Epoch = 131.9418 [0.0007] BKJD
Rp/R* = 0.0096 [0.0092]
a/R* = 7.81 [26.79]
b = 0.22 [14.82]
Seff = 1977.82 [334.17]
Teq = 1700 [72] K
Rp = 0.77 [0.75] Re
a = 0.0129 [0.0011] AU
Ag = 0.14 [1.79] [-0.48σ]
Teffp = 1608 [5149] K [-0.02σ]

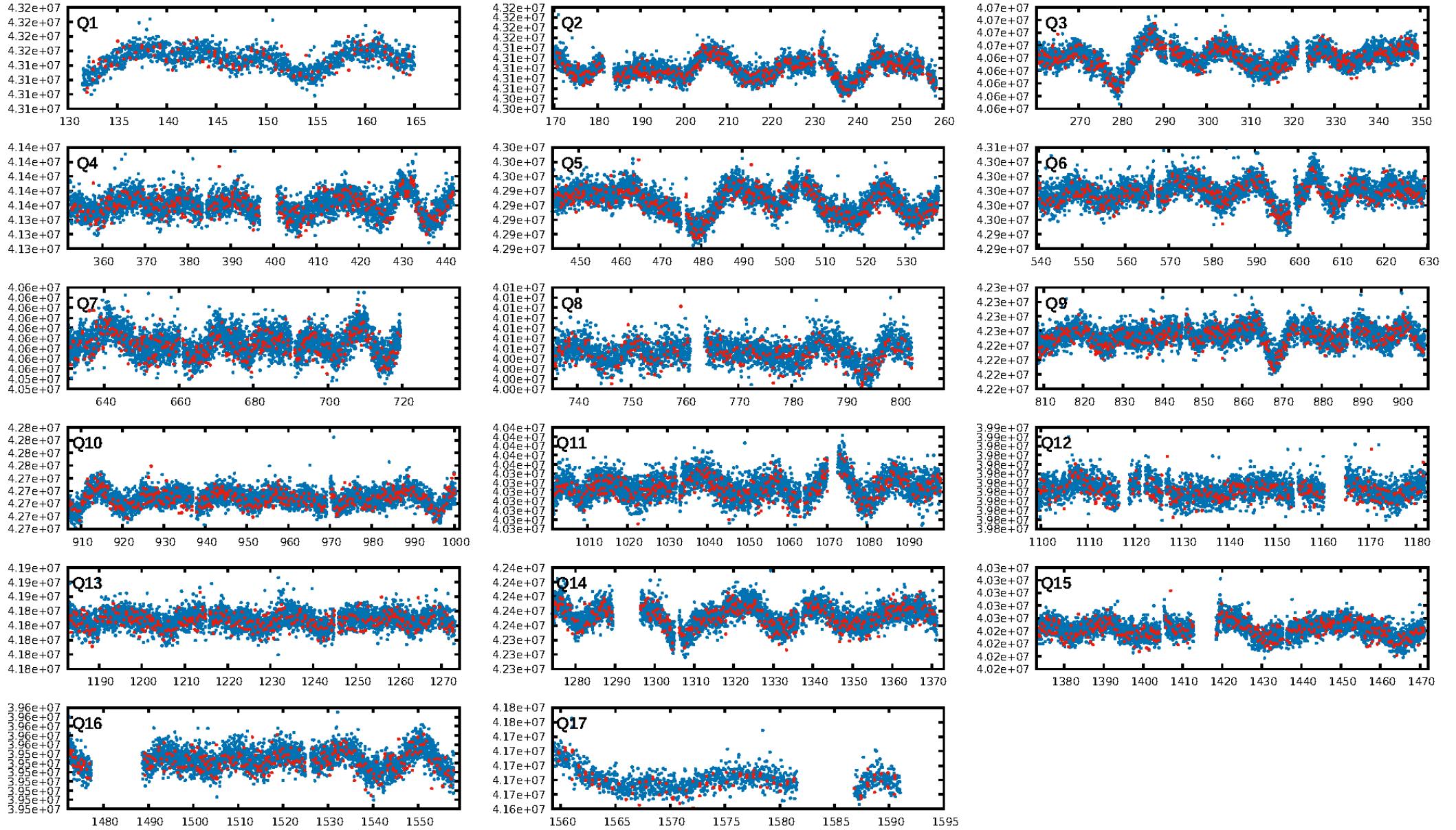
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.81e-43
RollingBand-fgt: 0.99 [2071/2084]
GhostDiagnostic-chr: 8.873
Centroid-sig: 43.4%
Centroid-so: 0.289 arcsec [0.48σ]
OotOffset-rm: 0.257 arcsec [0.87σ]
KicOffset-rm: 0.468 arcsec [1.52σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

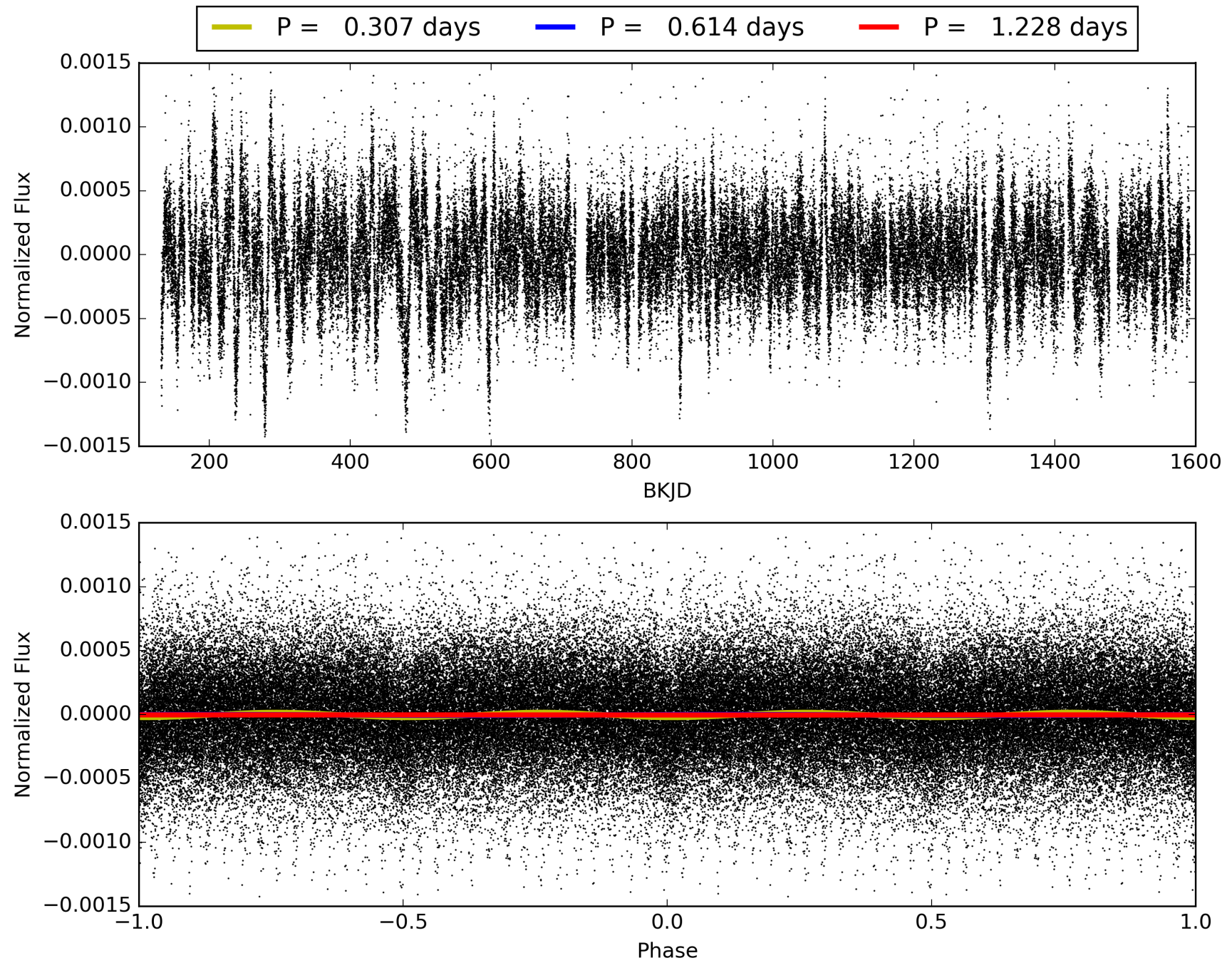
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 09:14:45 Z

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

TCE 007269881-02, PDC Light Curves

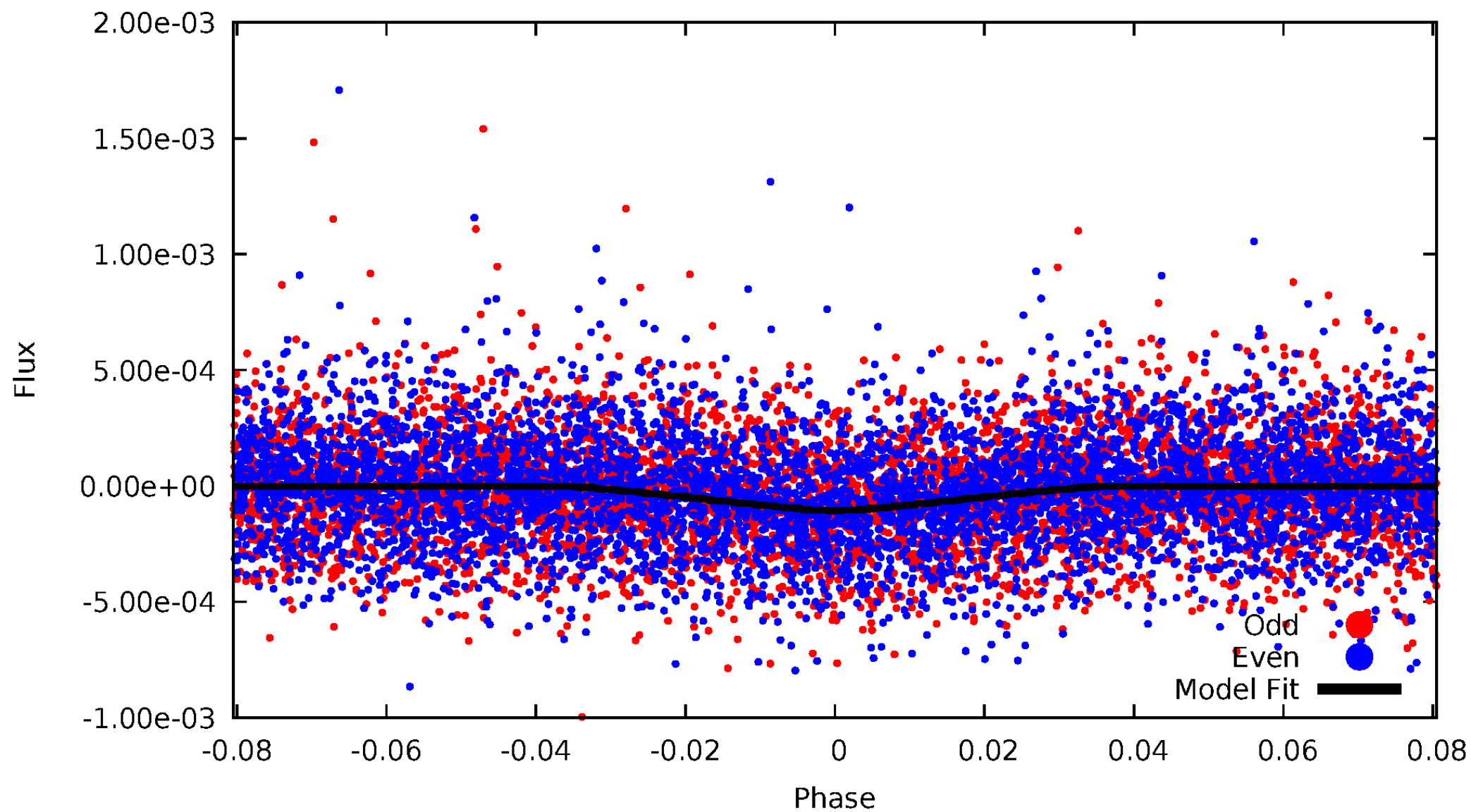


TCE 007269881-02



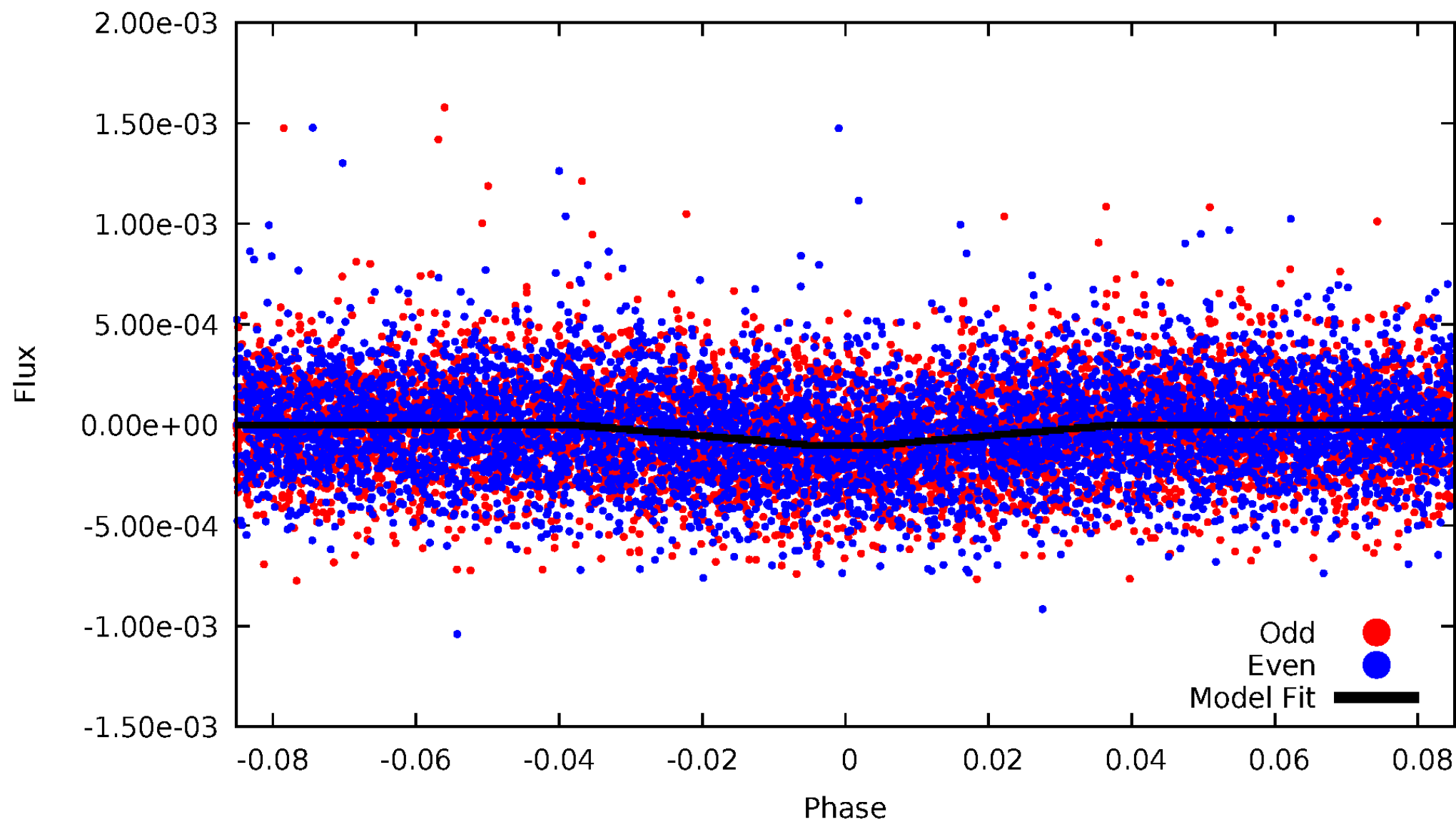
DV Odd/Even

TCE 007269881-02



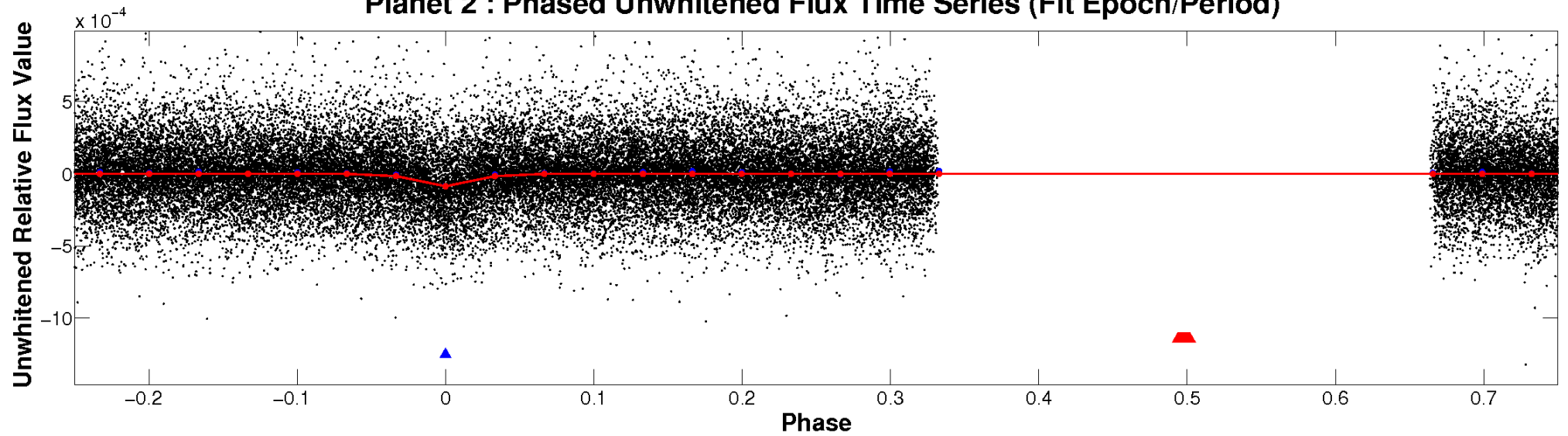
ALT Odd/Even

TCE 007269881-02

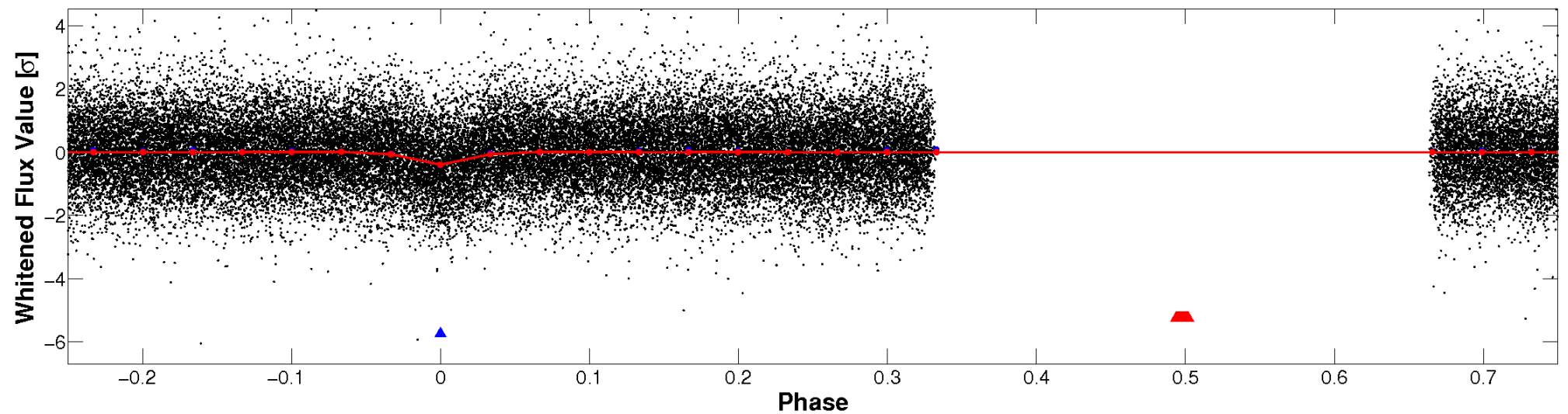


Non-Whitened Vs. Whitened Light Curve

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

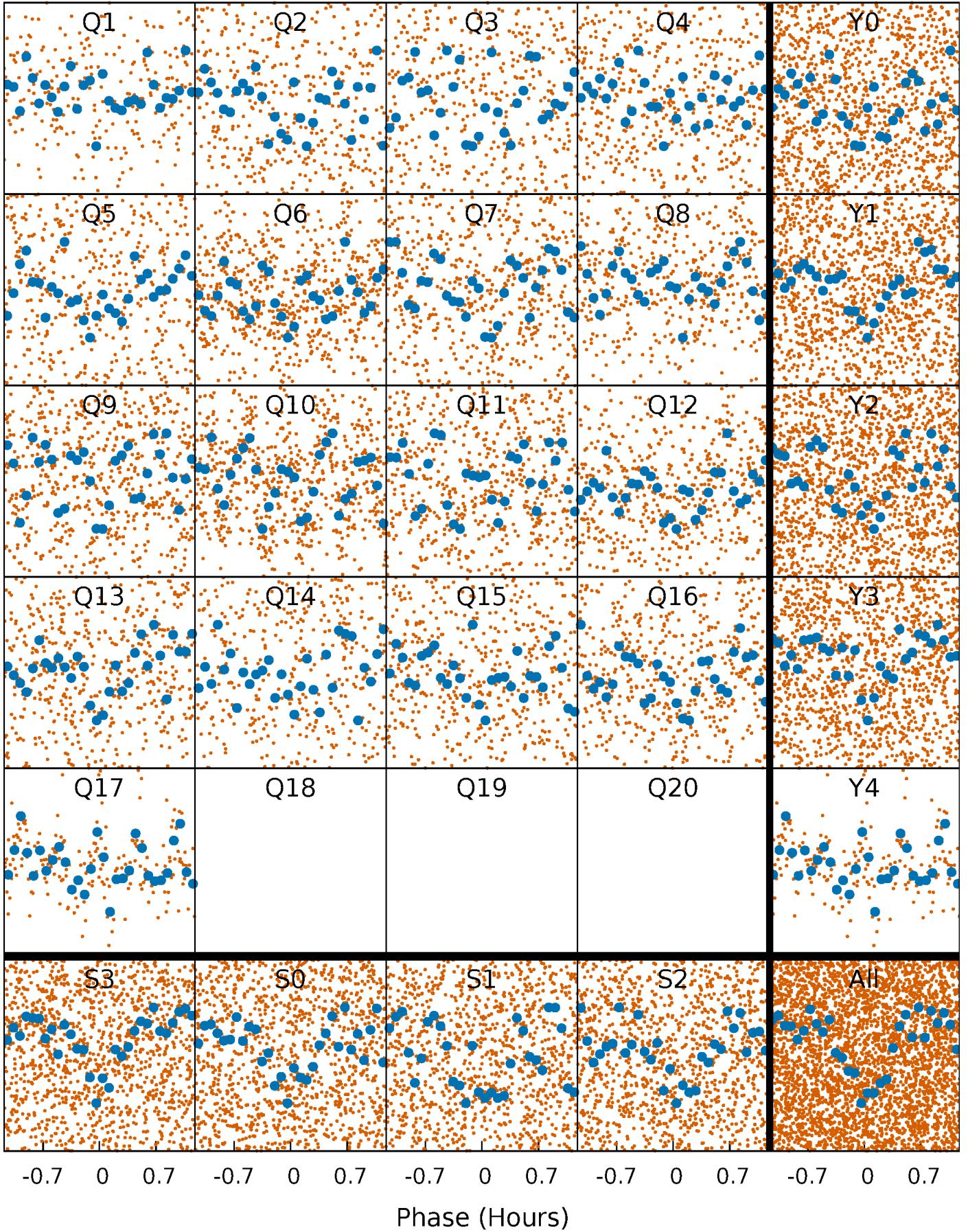


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



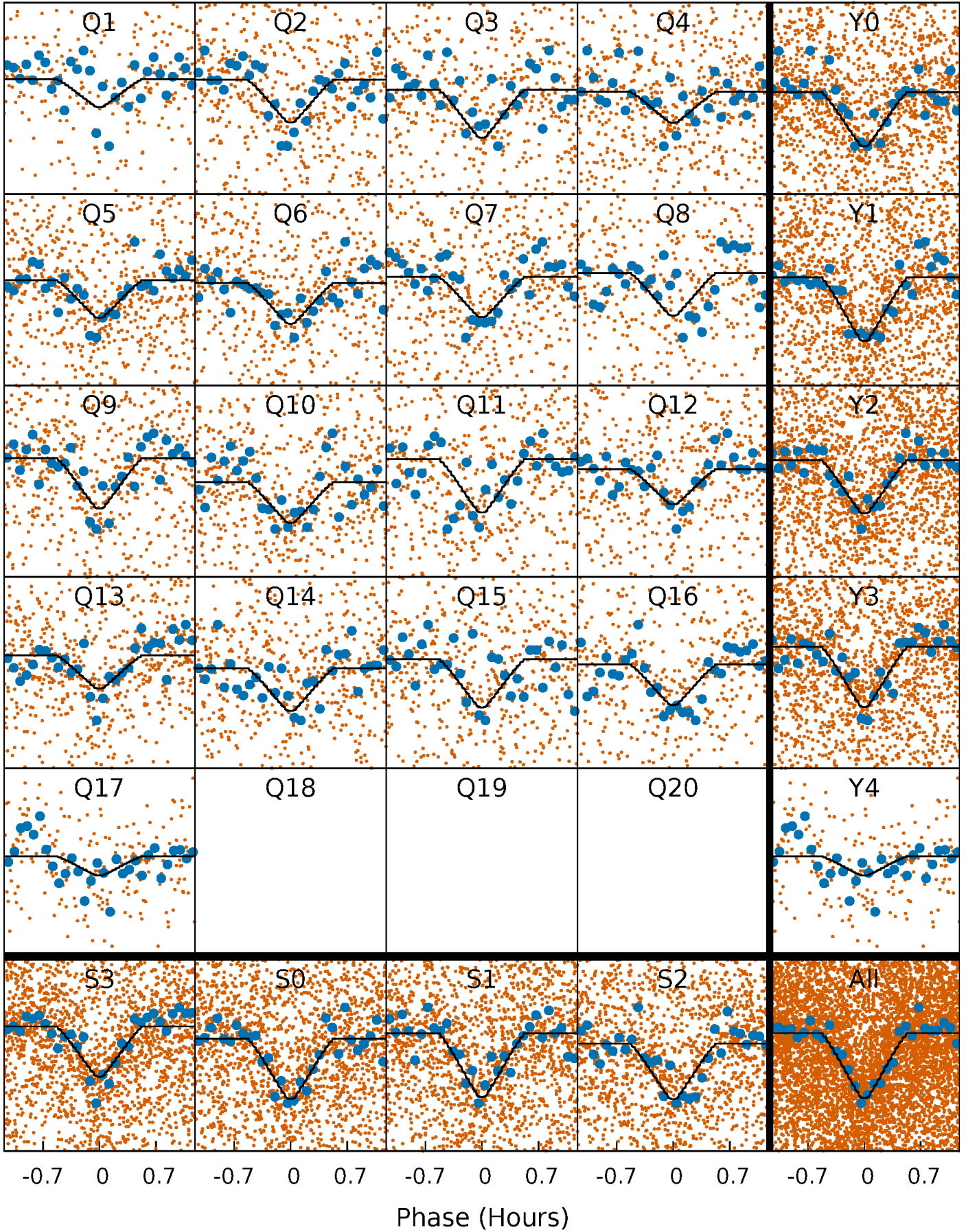
PDC Quarter-Phased Transit Curves

TCE 007269881-02 P= 0.613876 Days $T_0=131.941772$ (BKJD)



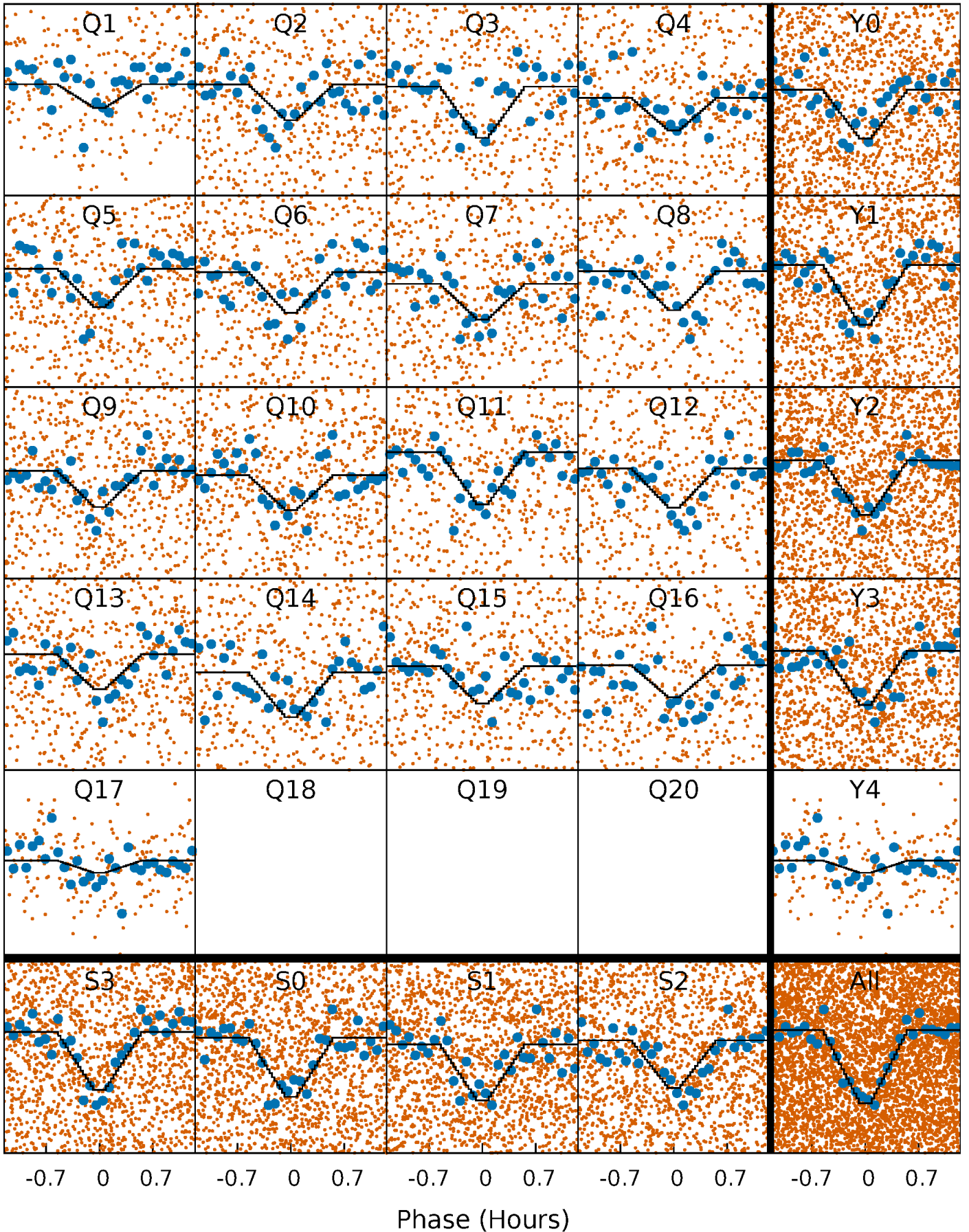
DV Quarter-Phased Transit Curves

TCE 007269881-02 P= 0.613876 Days $T_0=131.941772$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

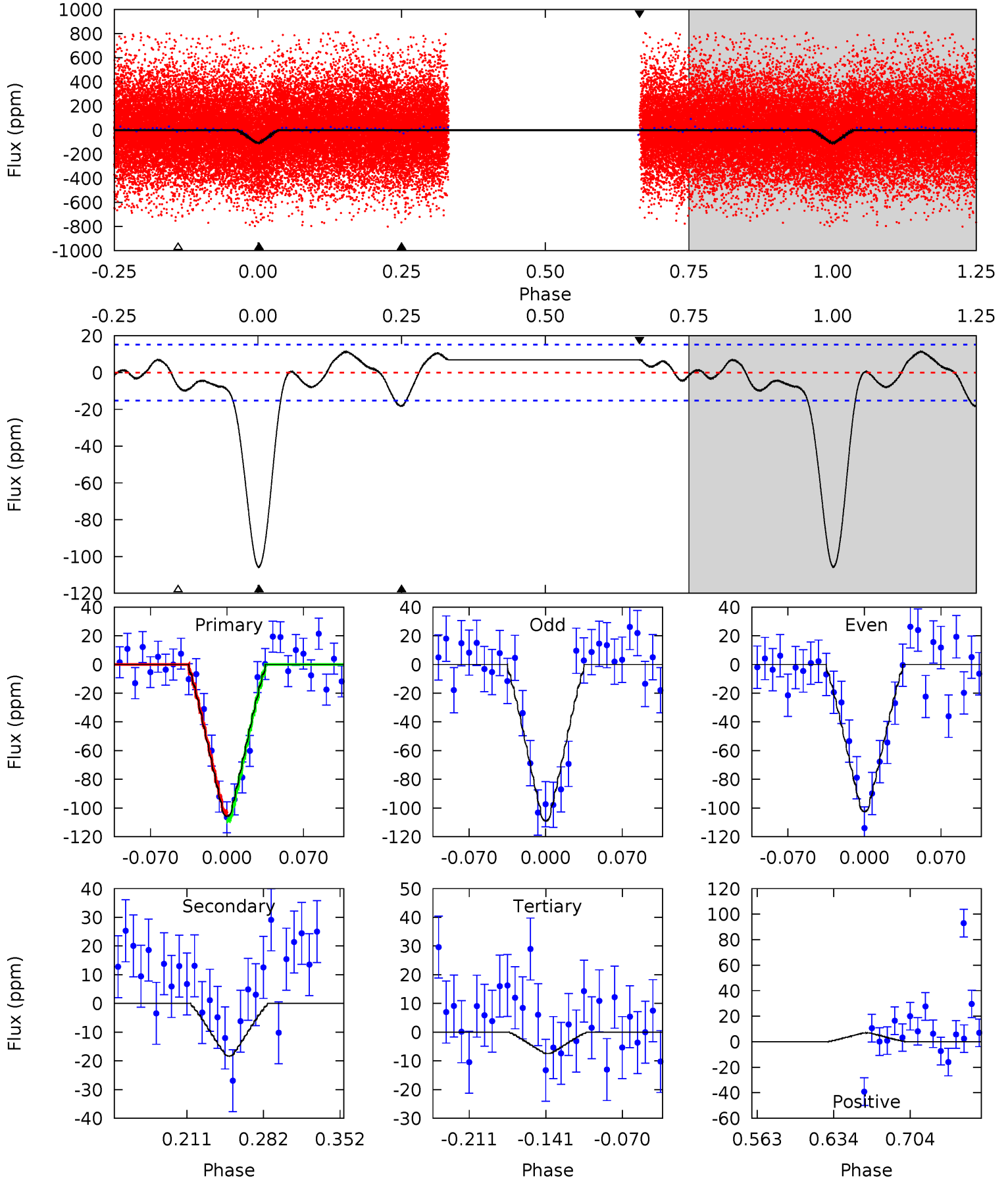
TCE 007269881-02 P= 0.613870 Days $T_0=131.949756$ (BKJD)



DV Model-Shift Uniqueness Test

007269881-02, P = 0.613876 Days, E = 131.327896 Days

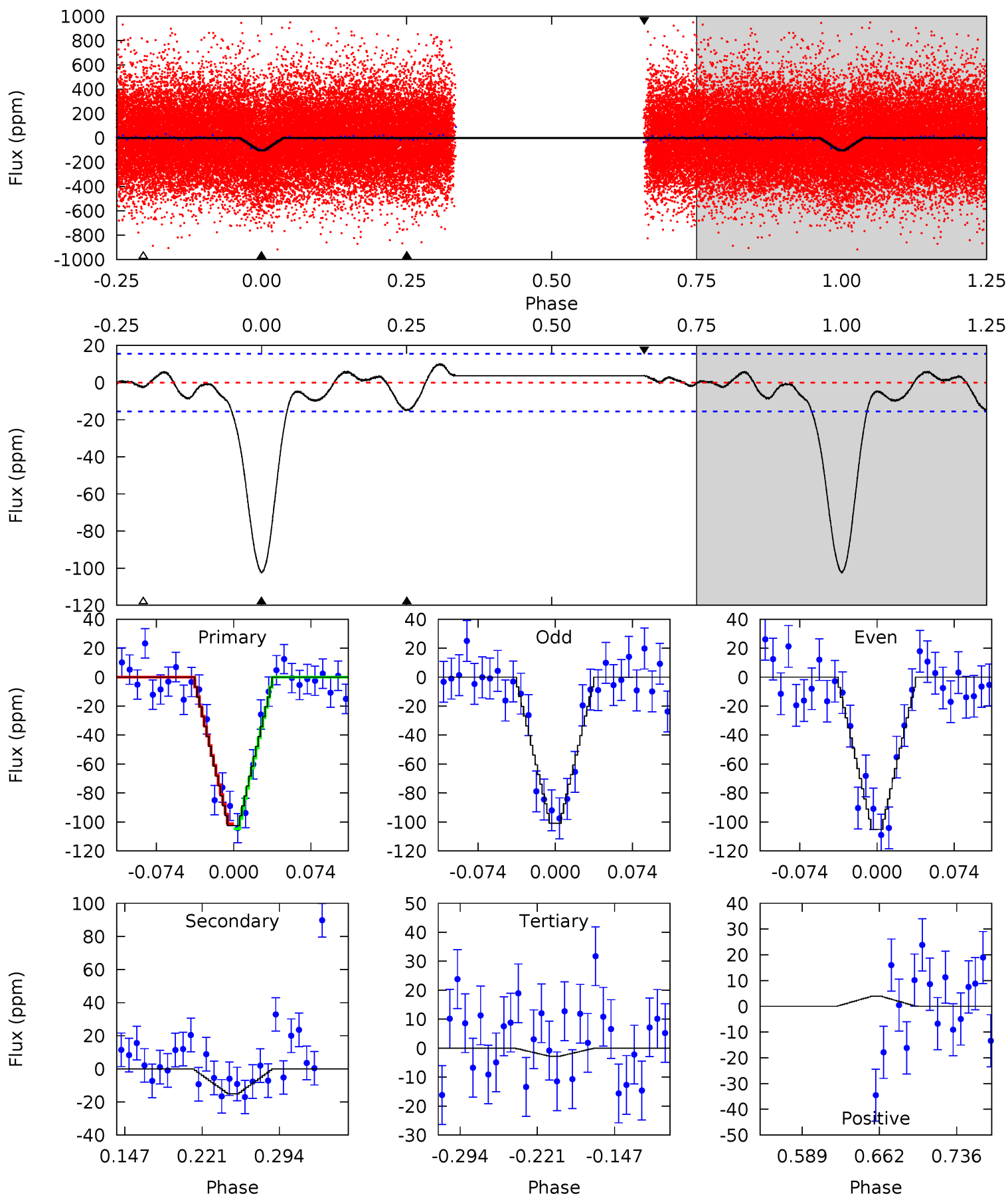
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.3	5.58	2.27	2.11	4.64	1.81	1.78	30.0	30.2	3.31	3.47	0.99	0.94	0.10	0.81



Alt Model-Shift Uniqueness Test

007269881-02, P = 0.613870 Days, E = 131.335886 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.5	4.52	0.83	1.15	4.63	1.79	1.24	29.7	29.4	3.69	3.37	0.63	0.99	0.09	0.49



Stellar Parameters For KIC 007269881

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5088^{+153}_{-138}	$4.580^{+0.044}_{-0.061}$	$-0.180^{+0.300}_{-0.300}$	$0.741^{+0.081}_{-0.066}$	$0.762^{+0.088}_{-0.066}$	$2.641^{+0.574}_{-0.564}$
	+3%/-3%	+1%/-1%	+167%/-167%	+11%/-9%	+12%/-9%	+22%/-21%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007269881-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-18 ± 3	$0.93^{+0.69}_{-0.60}$	2384^{+83}_{-81}	3463^{+1717}_{-736}	$1.971^{+13.036}_{-1.345}$
Alt.	-15 ± 3	$1.00^{+0.69}_{-0.62}$	2383^{+89}_{-80}	3258^{+1374}_{-702}	$1.430^{+7.645}_{-0.935}$

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

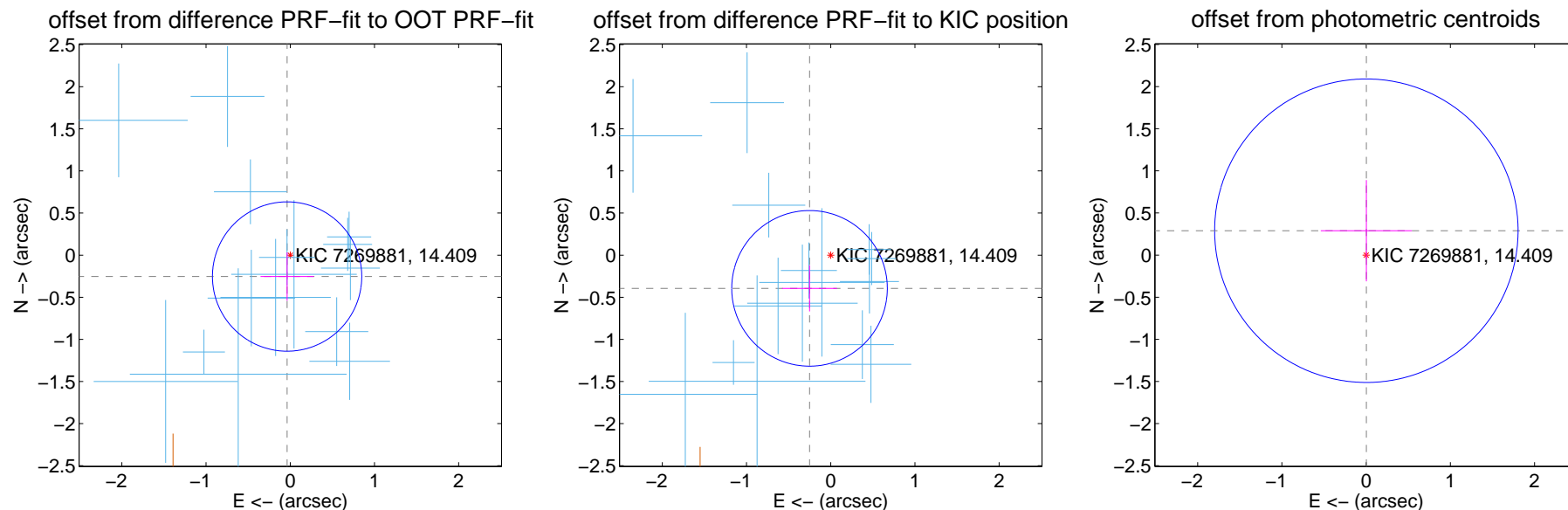
DV Centroid Data

Supplemental centroid analysis for 007269881-02. Kepler magnitude: 14.41. Transit SNR 19.35

There are 15 quarters with good PRF difference image offsets

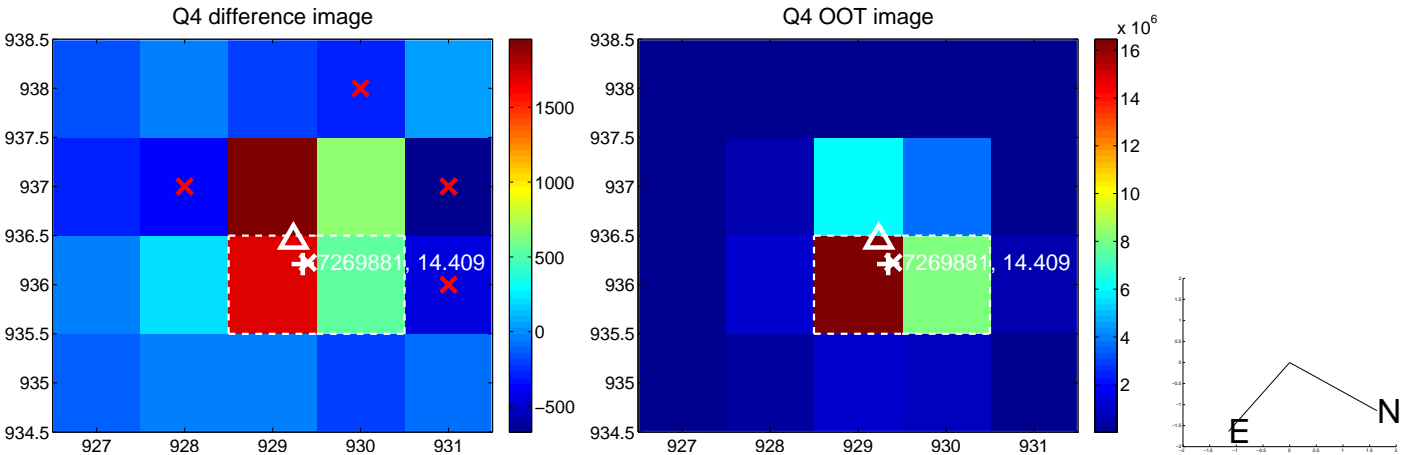
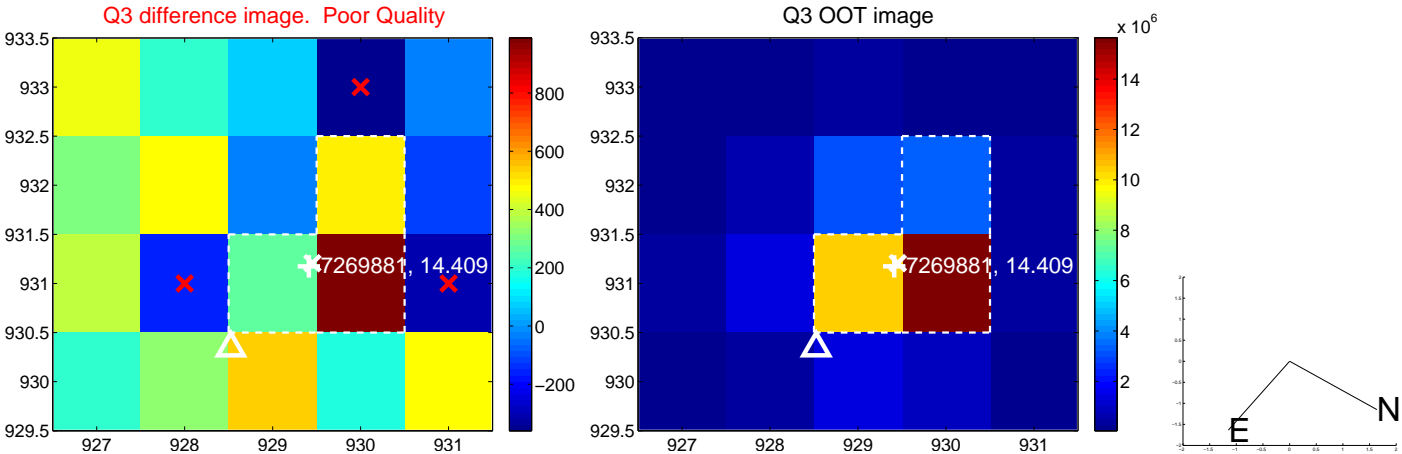
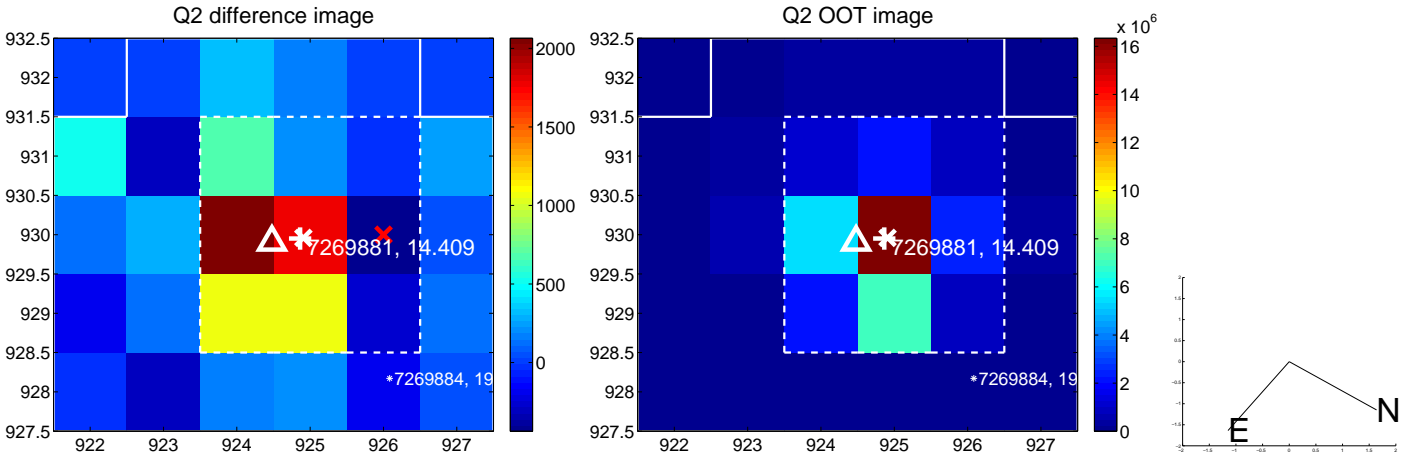
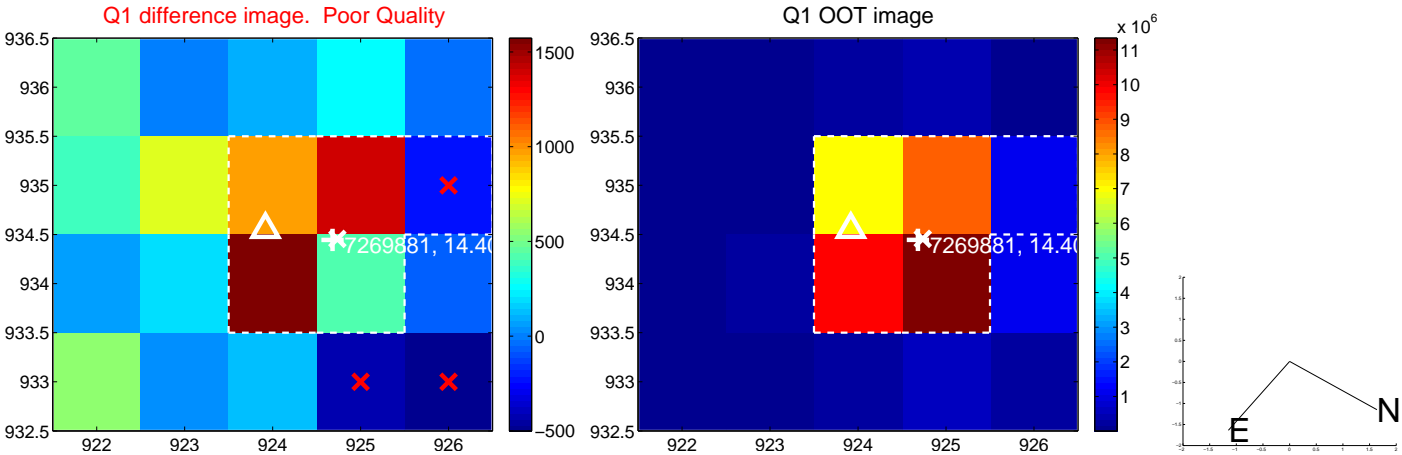
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.257 ± 0.296	0.87	0.038 ± 0.316	-0.254 ± 0.287
PRF-fit source offset from KIC position	0.468 ± 0.308	1.52	0.252 ± 0.326	-0.394 ± 0.274
photometric centroid source offset	0.29 ± 0.60	0.48	-0.00 ± 0.54	0.29 ± 0.60

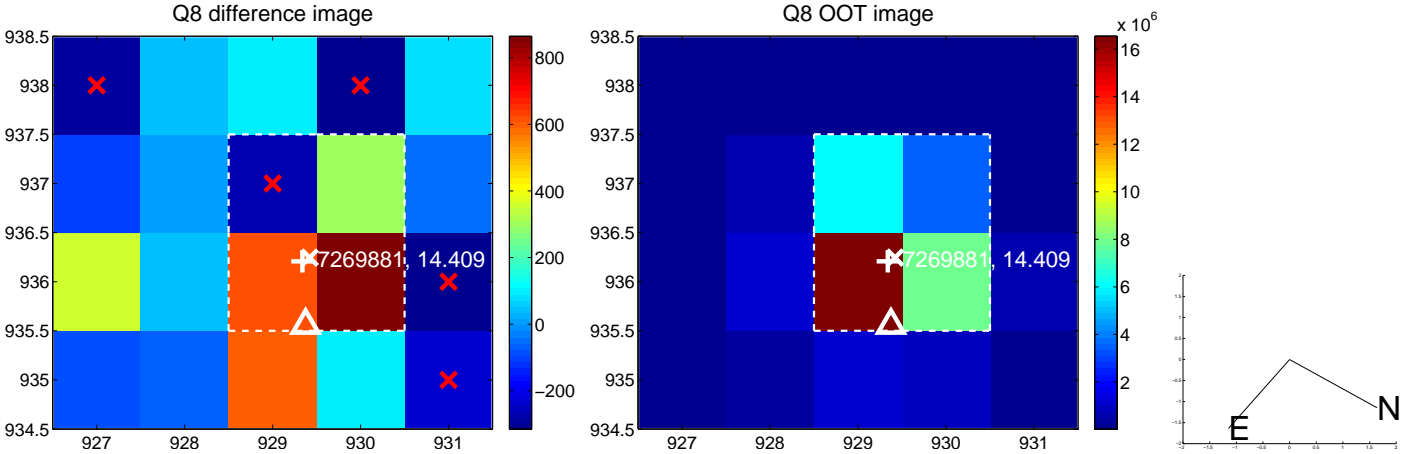
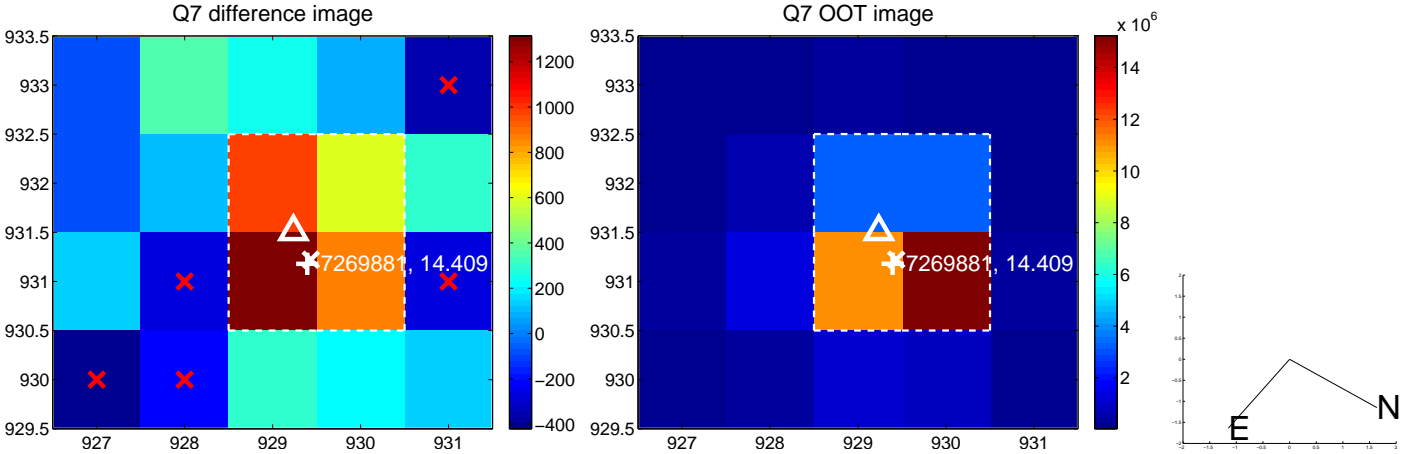
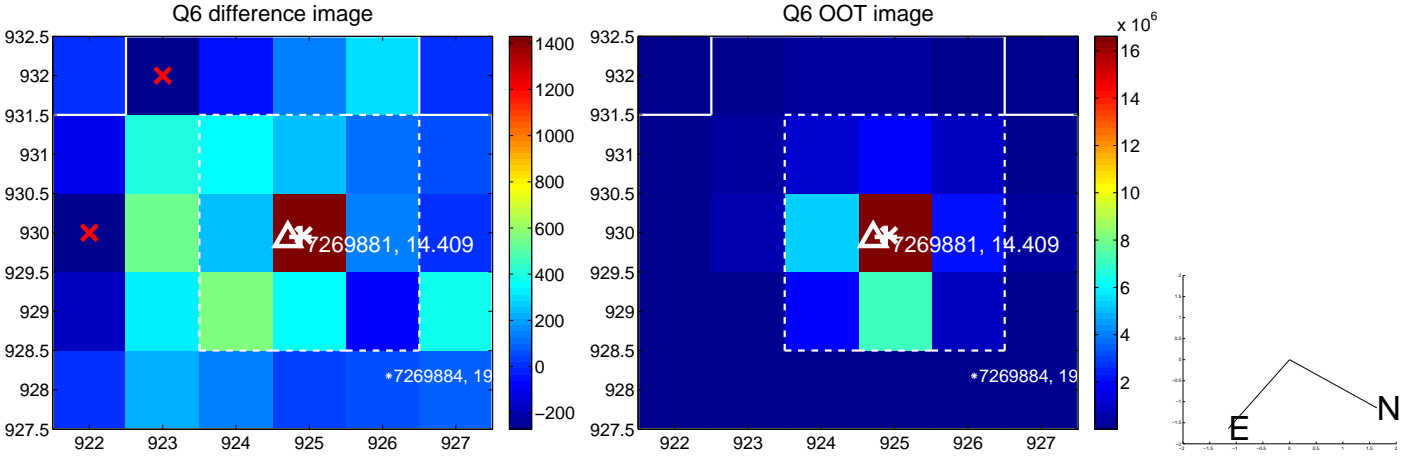
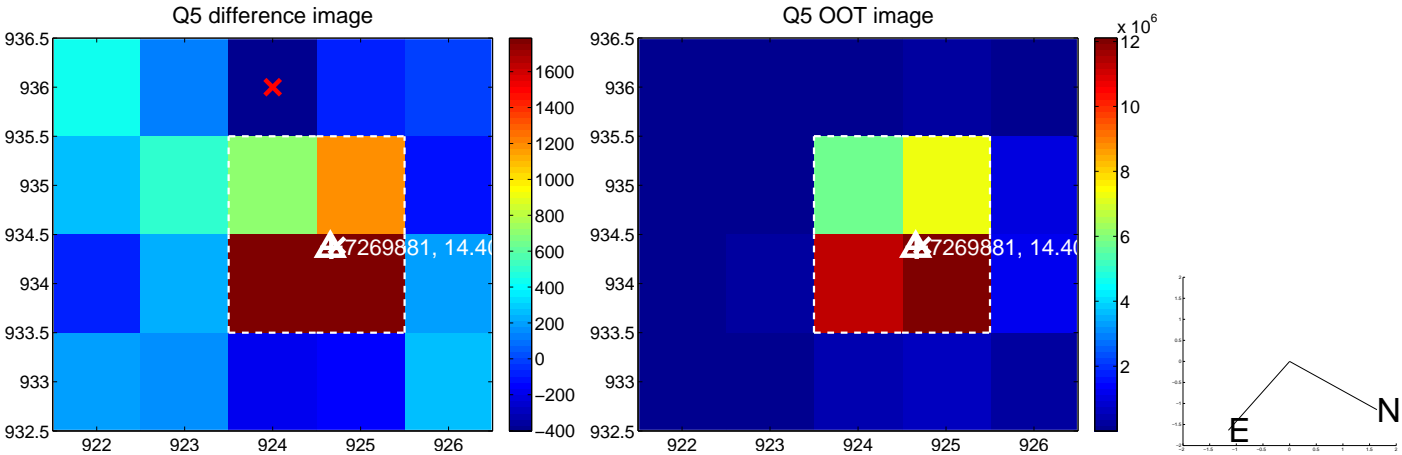


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

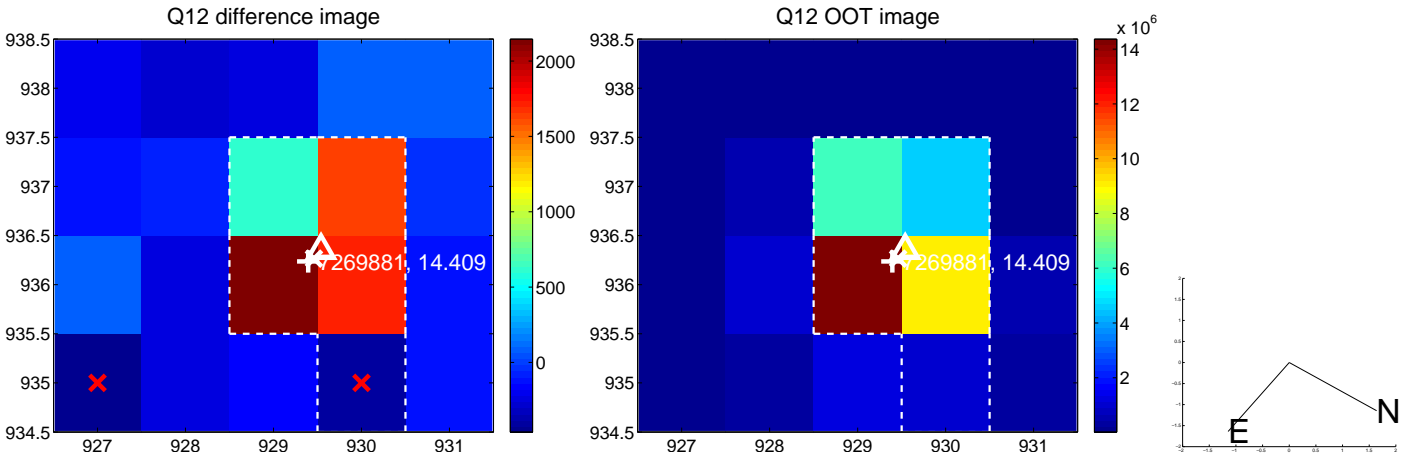
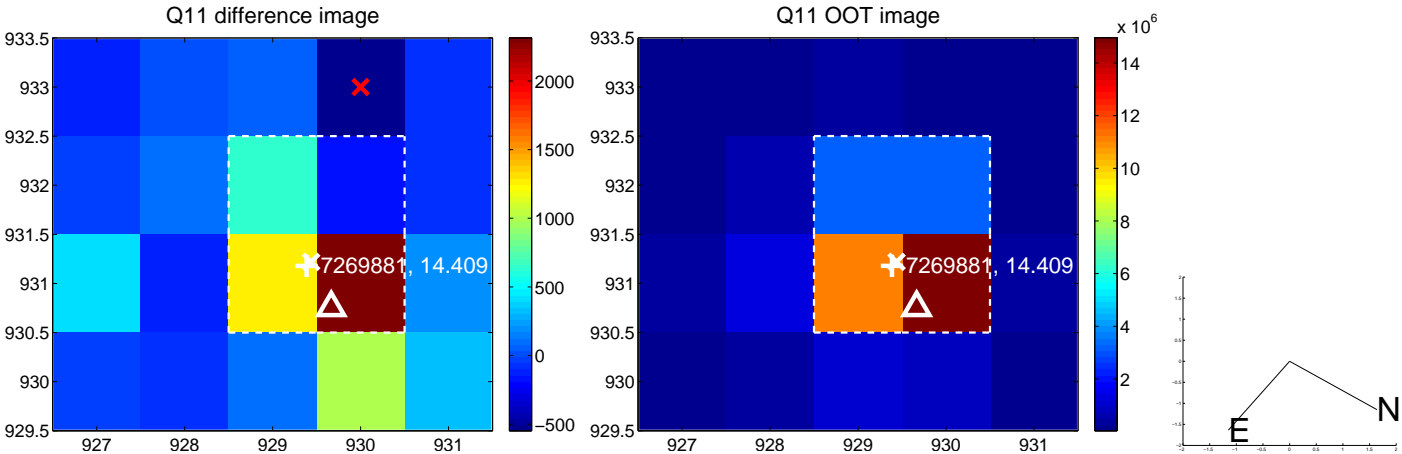
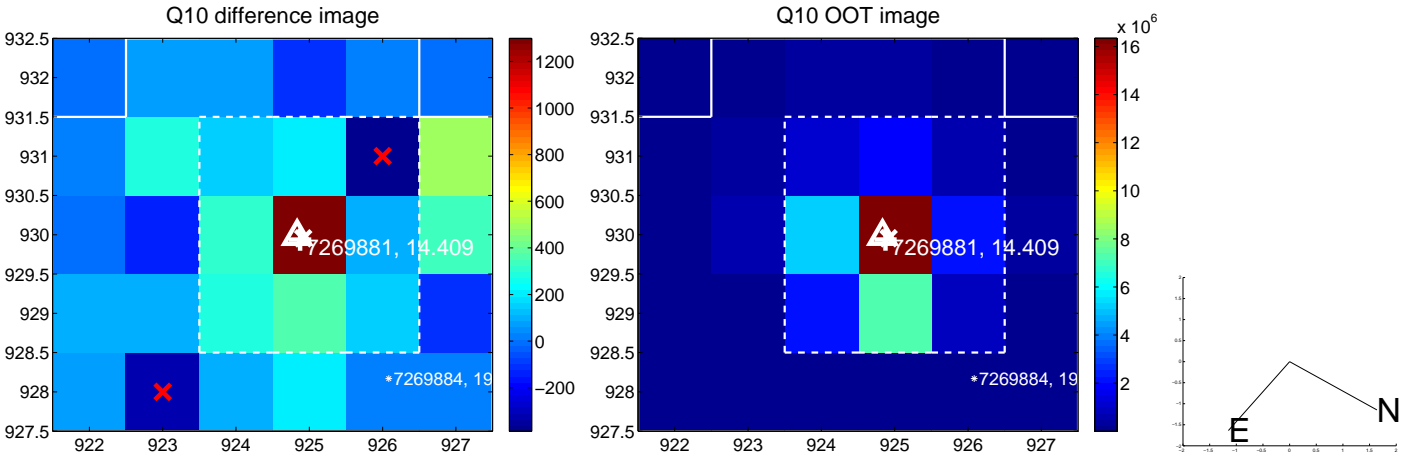
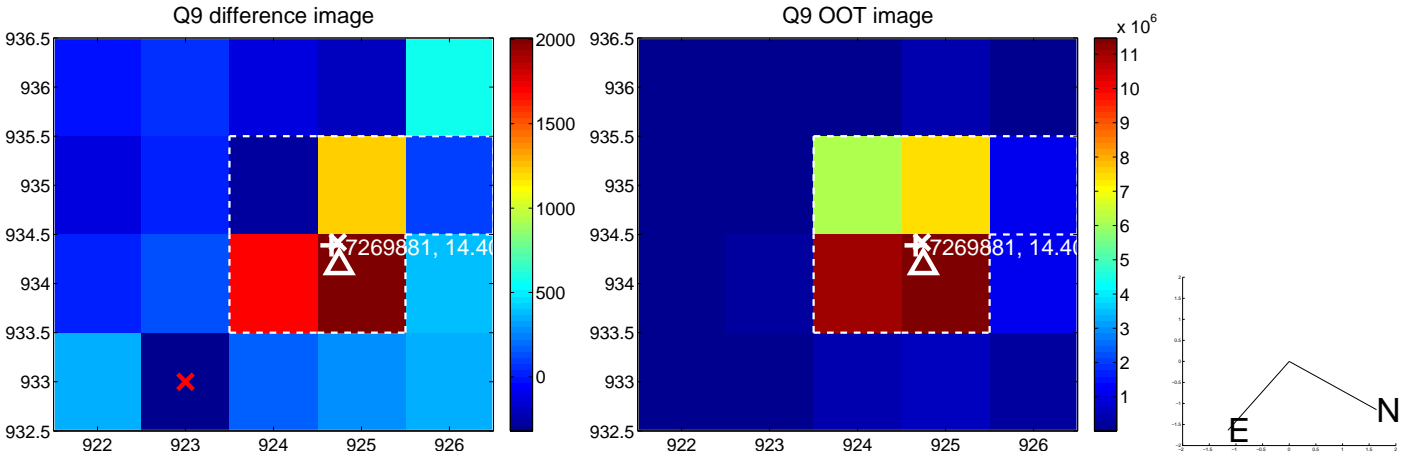
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



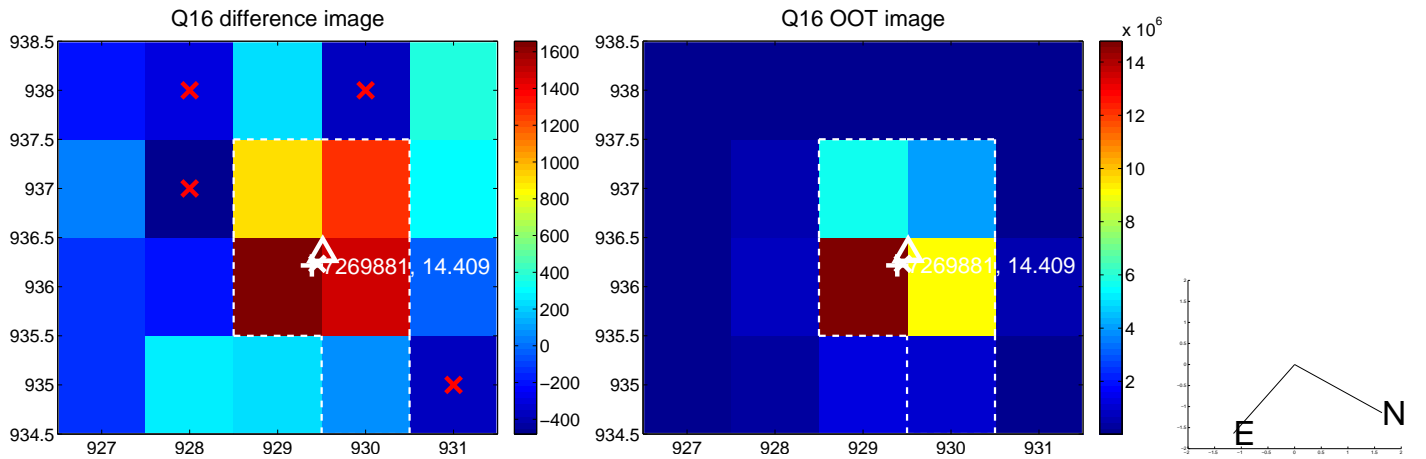
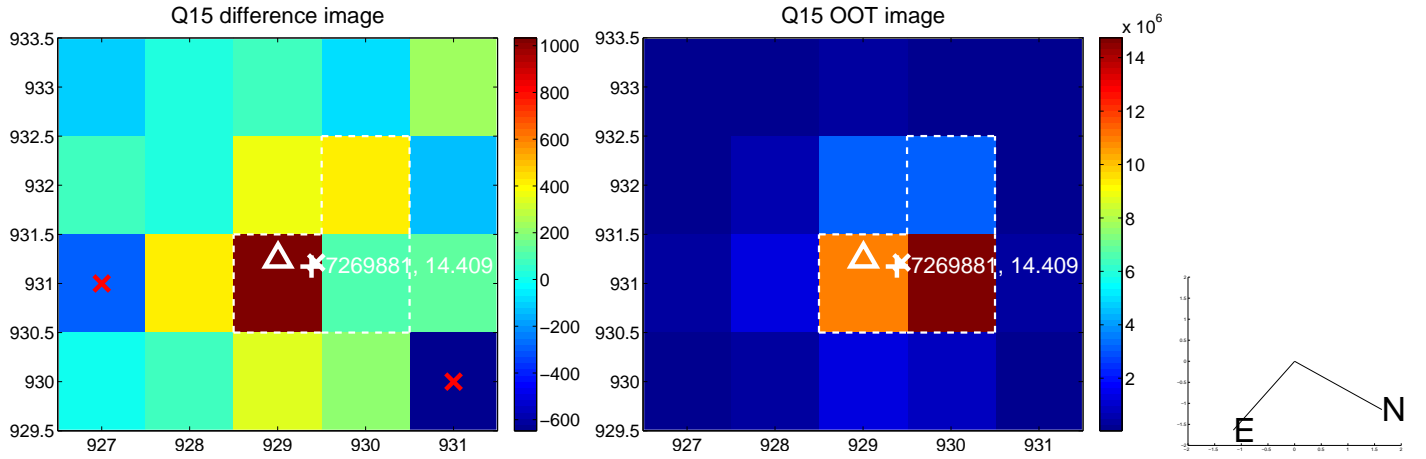
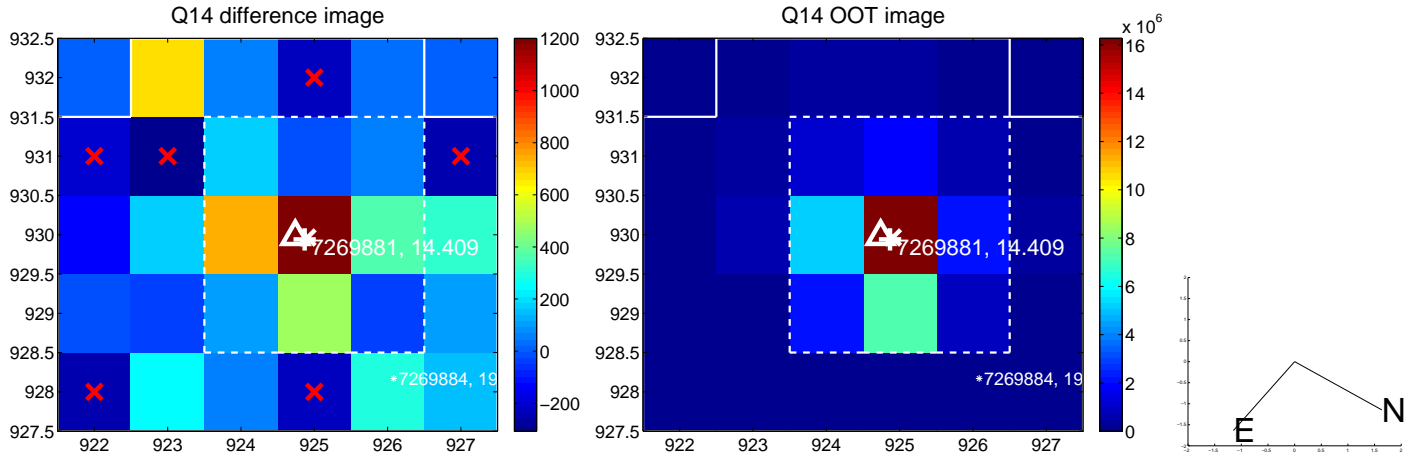
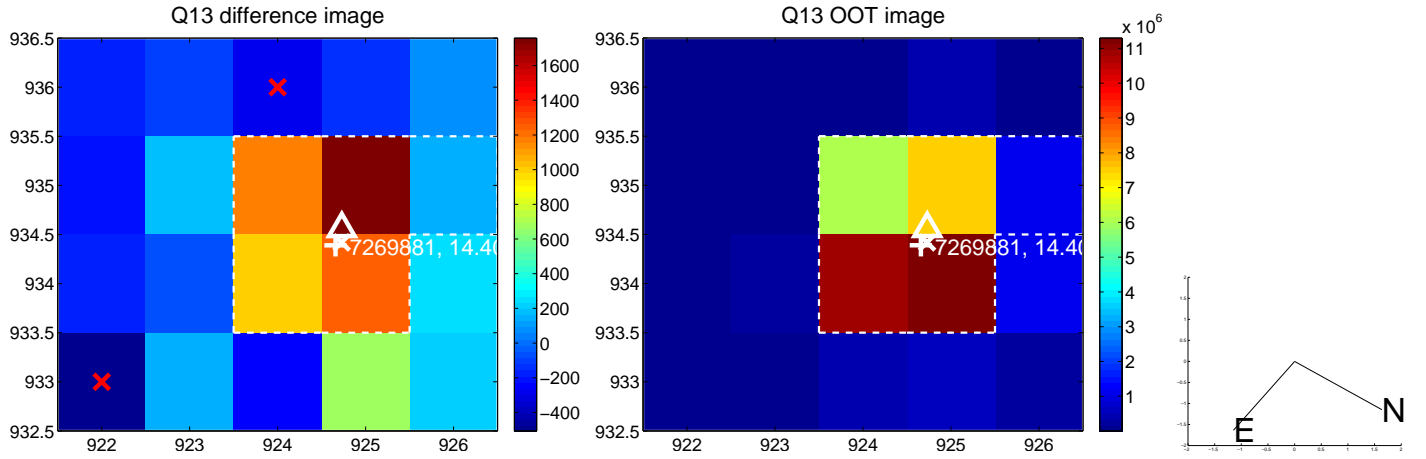
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



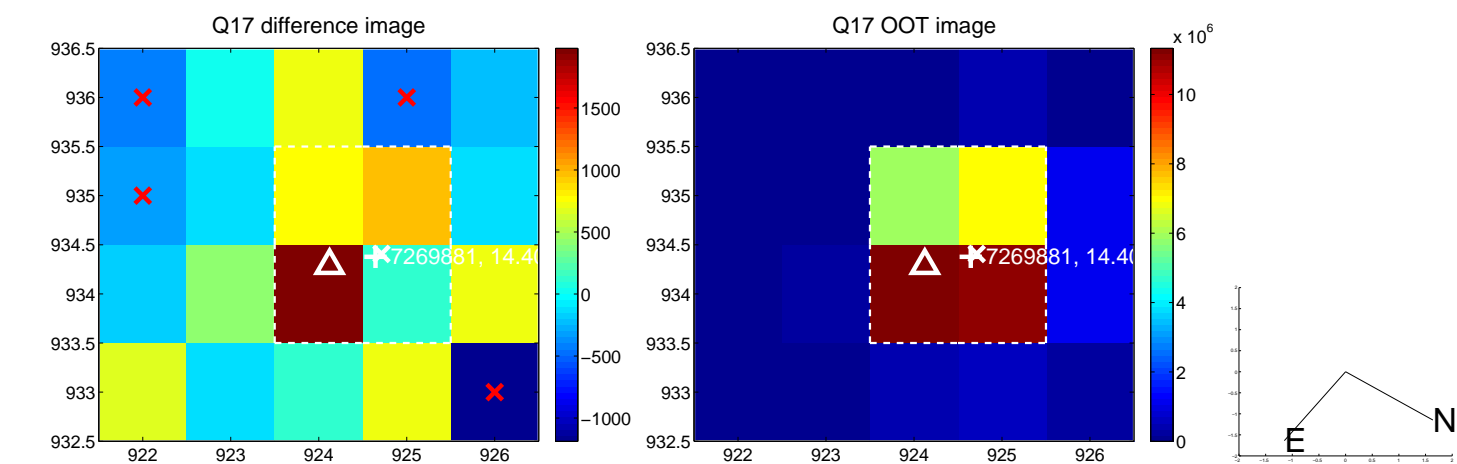
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



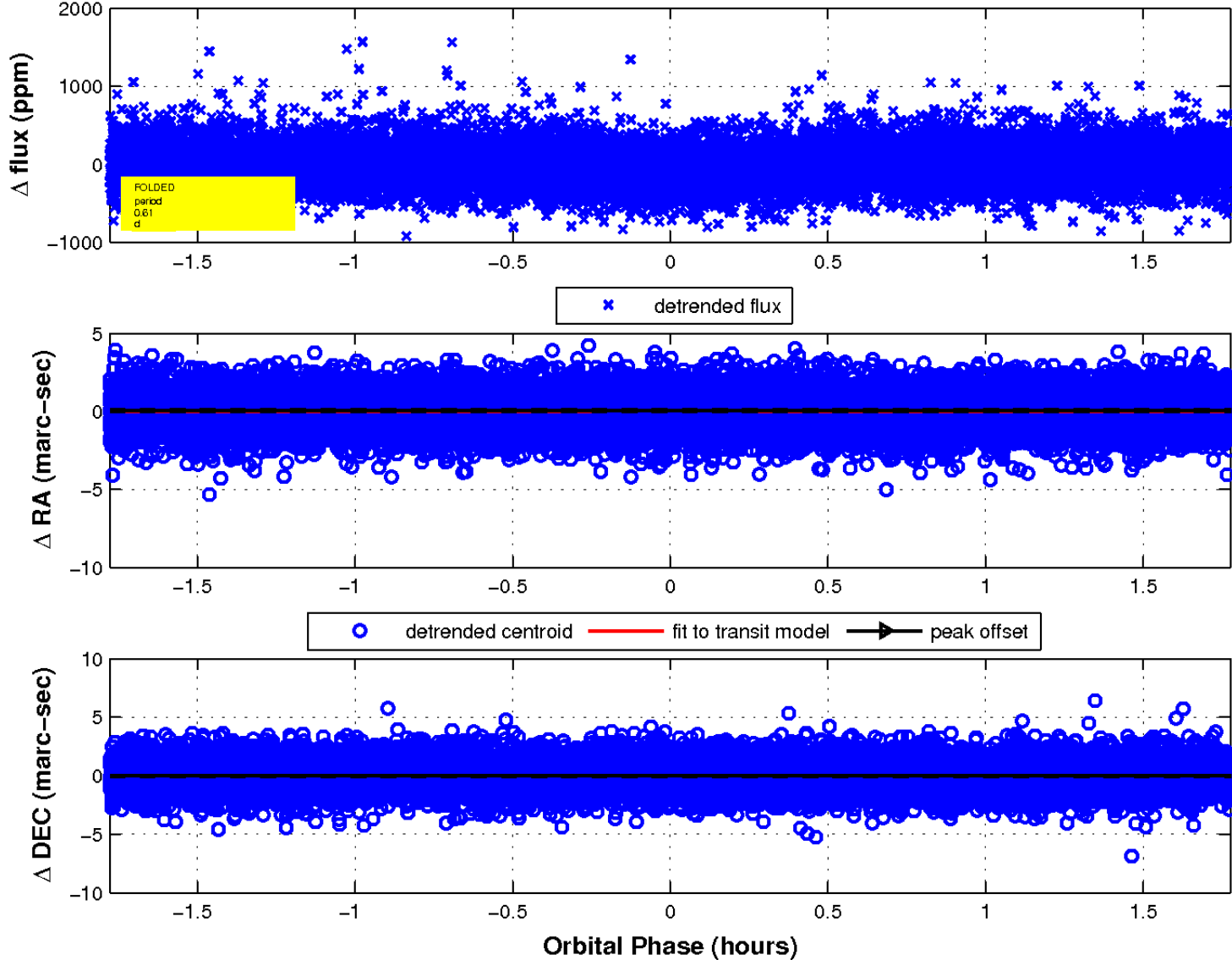
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 2 of 2



UKIRT Image

Declination

