

KIC 005084289

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})
005084289-01	OBS	No	1.361765	131.945390	21.9	2.948	11.6	9.2	2.60	6796	1.42	17859.25
005084289-02	OBS	No	1.362005	132.992340	0.0	3.217	8.1	0.0	2.60	6796	0.01	17855.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005084289-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005084289-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

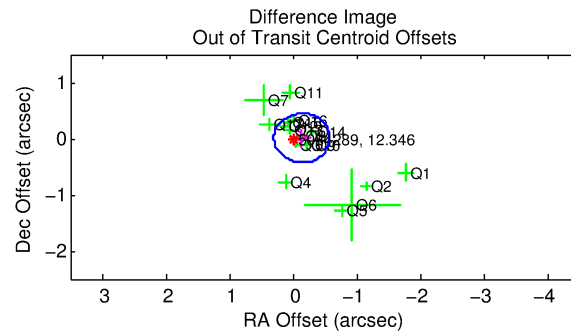
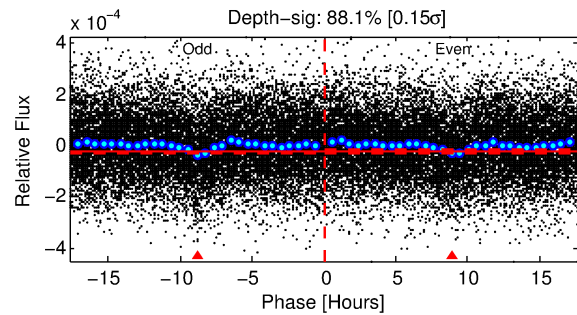
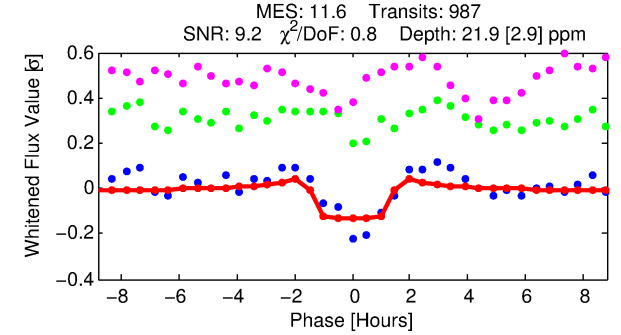
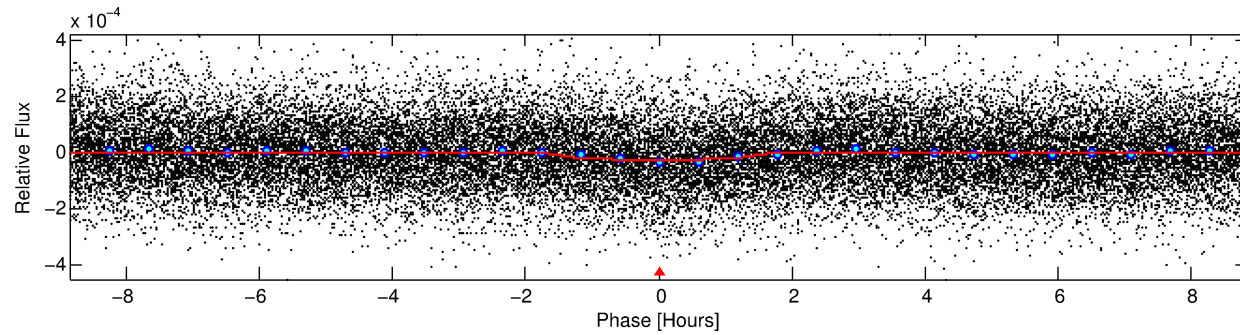
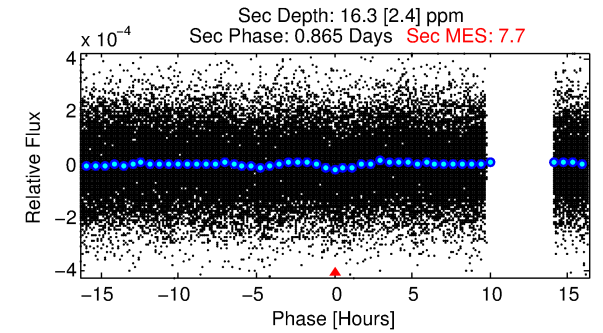
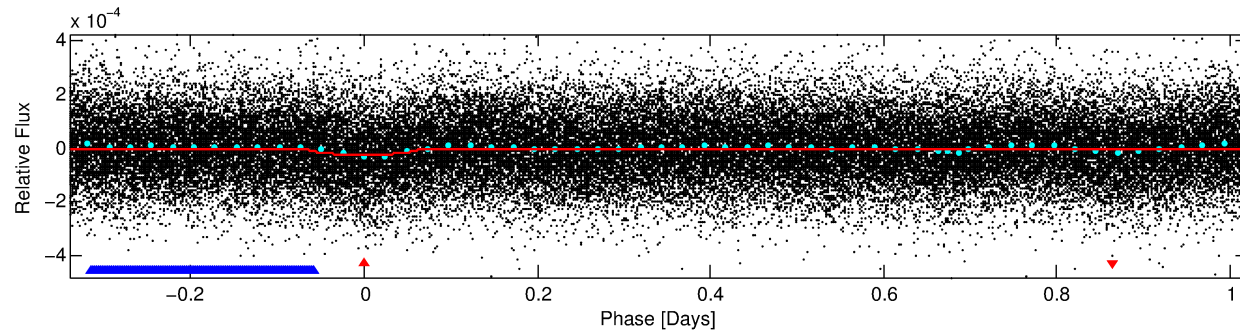
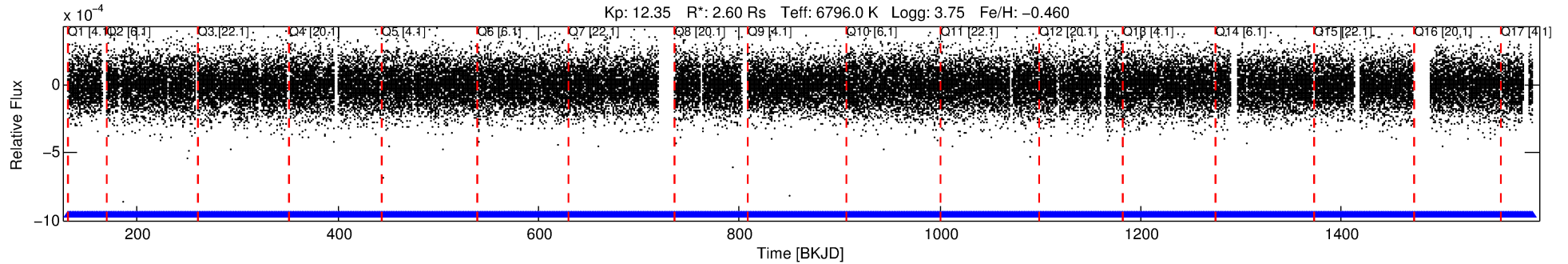
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005084289-01

No Significant Match Found

DV One-Page Summary

KIC: 5084289 Candidate: 1 of 2 Period: 1.362 d



DV Fit Results:

Period = 1.36176 [0.00001] d
Epoch = 131.9454 [0.0028] BKJD
Rp/R* = 0.0050 [0.0011]
a/R* = 1.82 [1.56]
b = 0.90 [0.26]
Seff = 17859.25 [9768.58]
Teq = 2948 [403] K
Rp = 1.42 [0.58] Re
a = 0.0268 [0.0090] AU
Ag = 3.23 [2.25] [0.99σ]
Teffp = 6110 [710] K [3.87σ]

DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.72e-25
RollingBand-fgt: 1.00 [943/943]
GhostDiagnostic-chr: 1.129
Centroid-sig: 6.1%
Centroid-so: 0.938 arcsec [1.42σ]
OotOffset-rm: 0.138 arcsec [0.95σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.206 arcsec [1.17σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 0.00 [0/17]

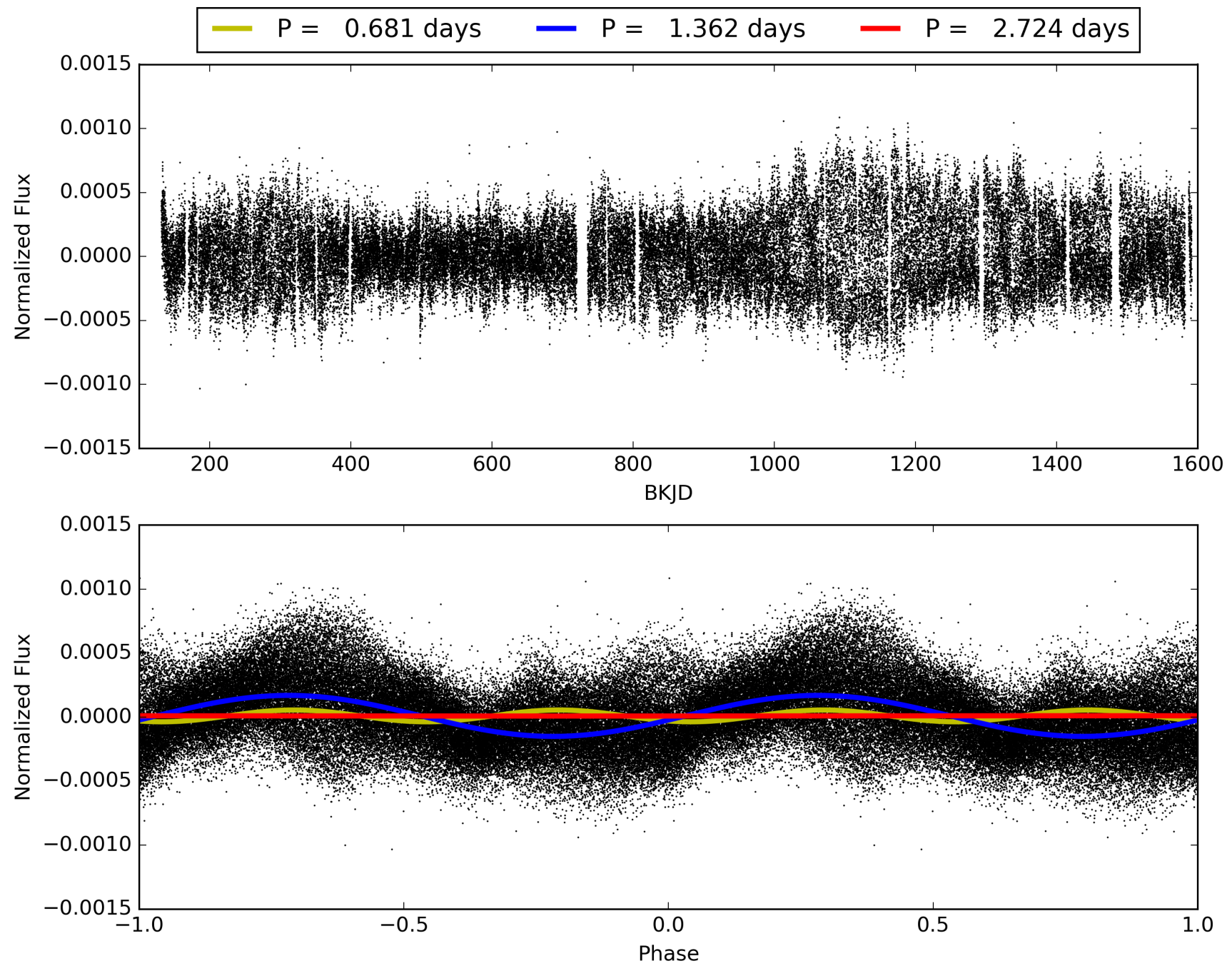
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 08:14:03 Z

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

TCE 005084289-01, PDC Light Curves

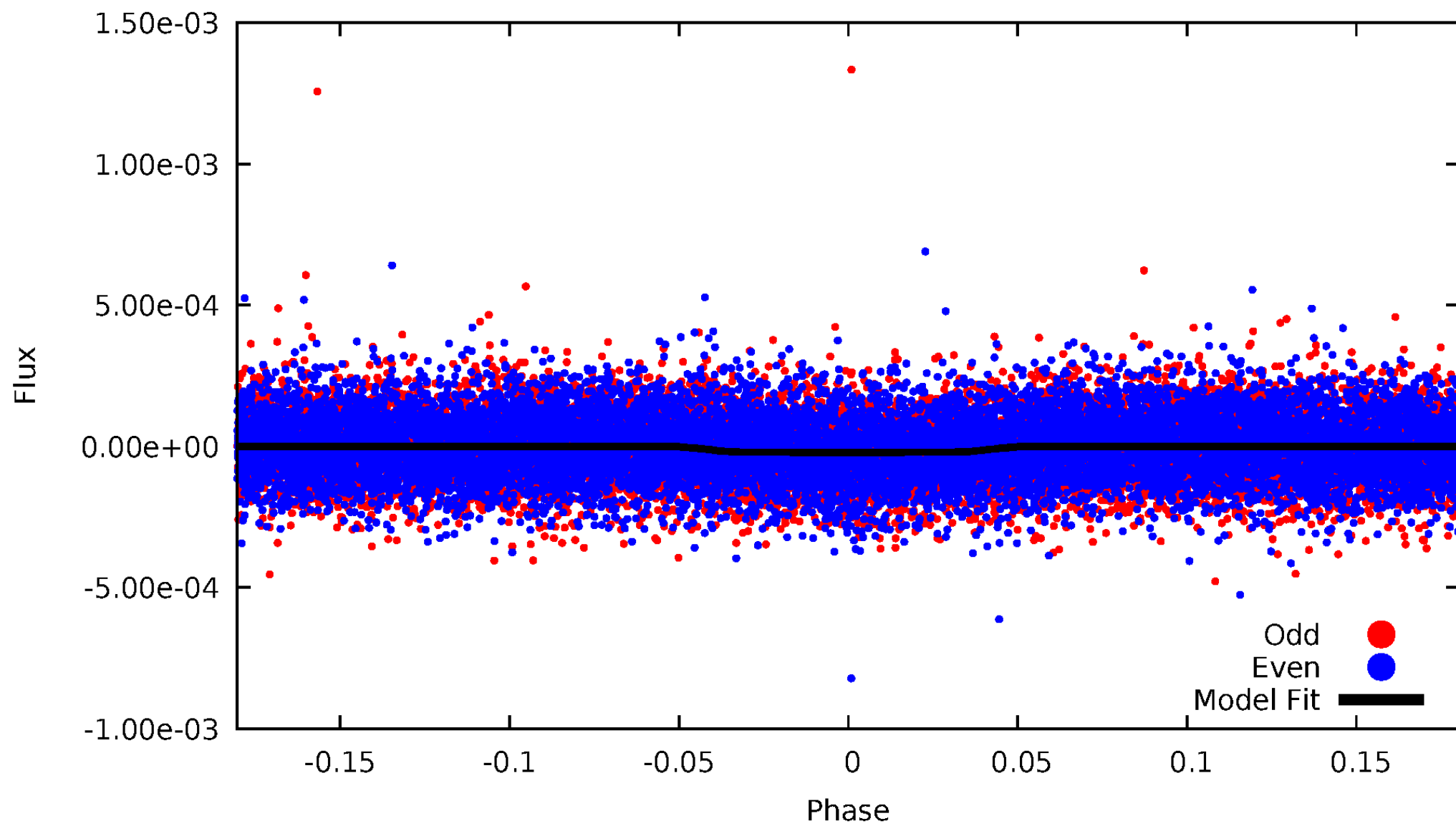


TCE 005084289-01



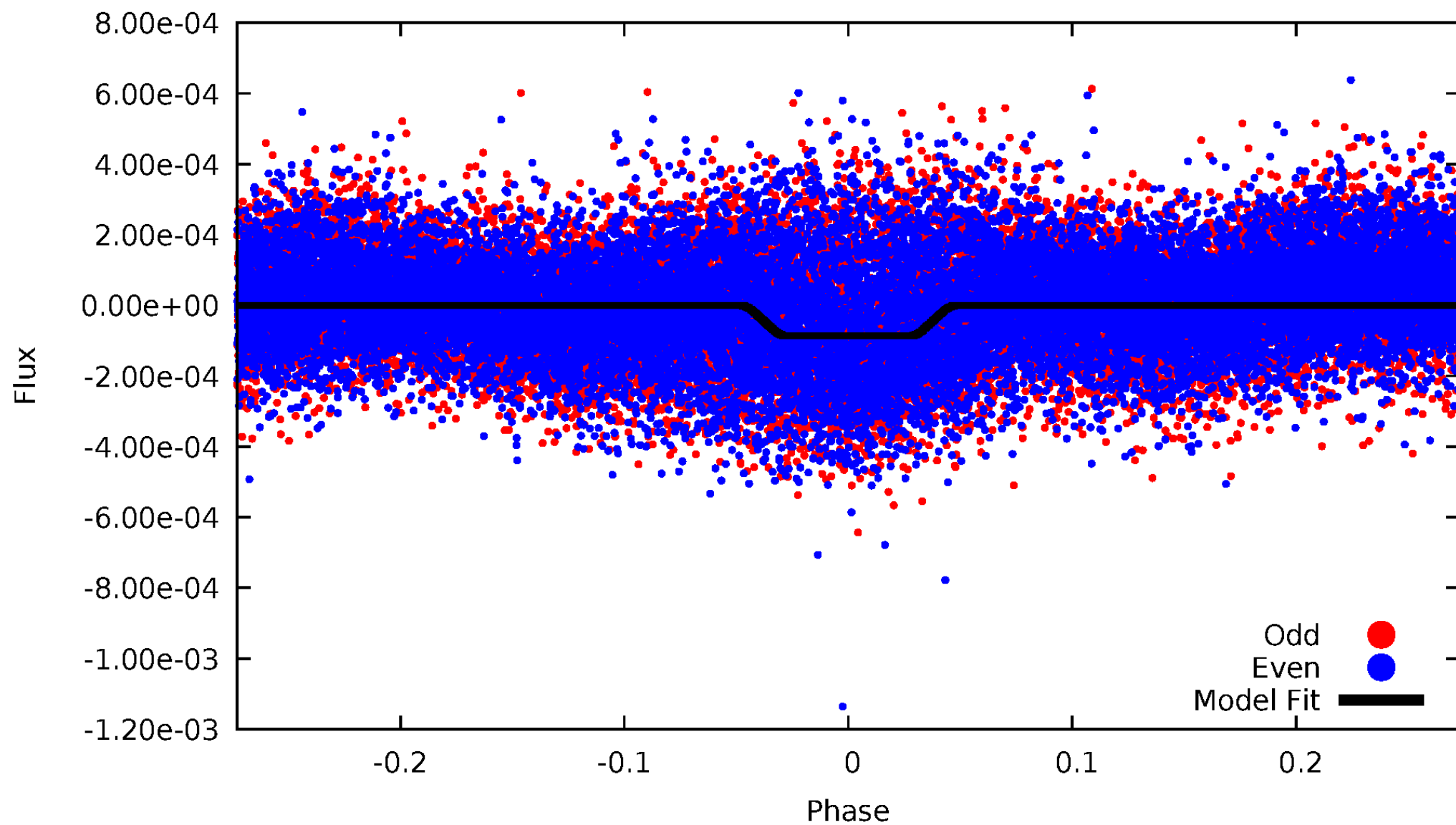
DV Odd/Even

TCE 005084289-01

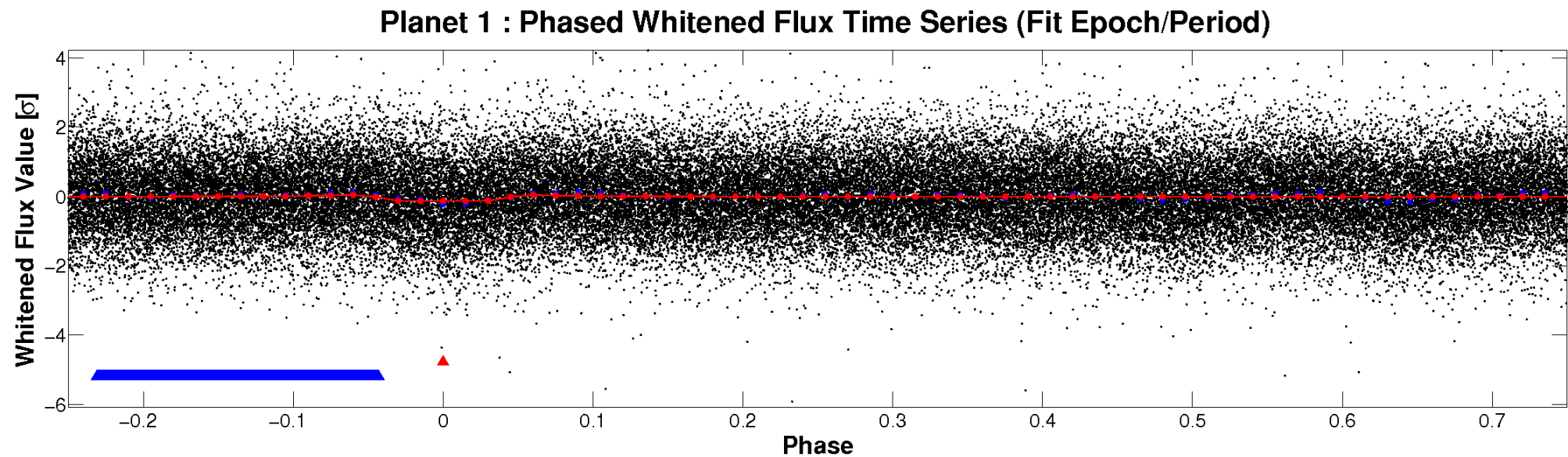
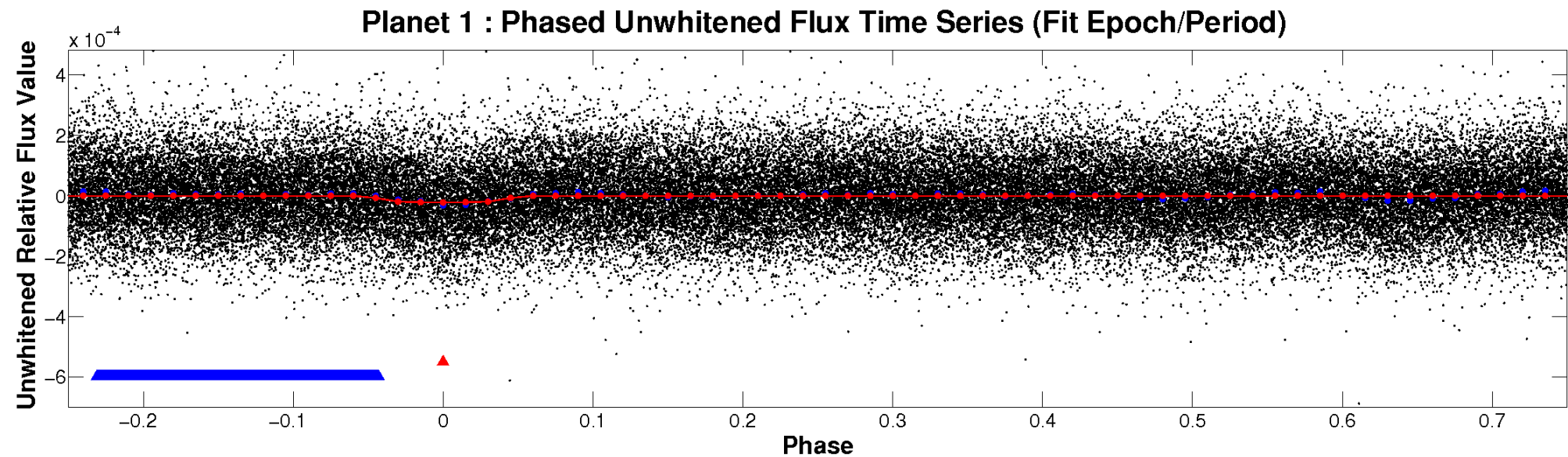


ALT Odd/Even

TCE 005084289-01

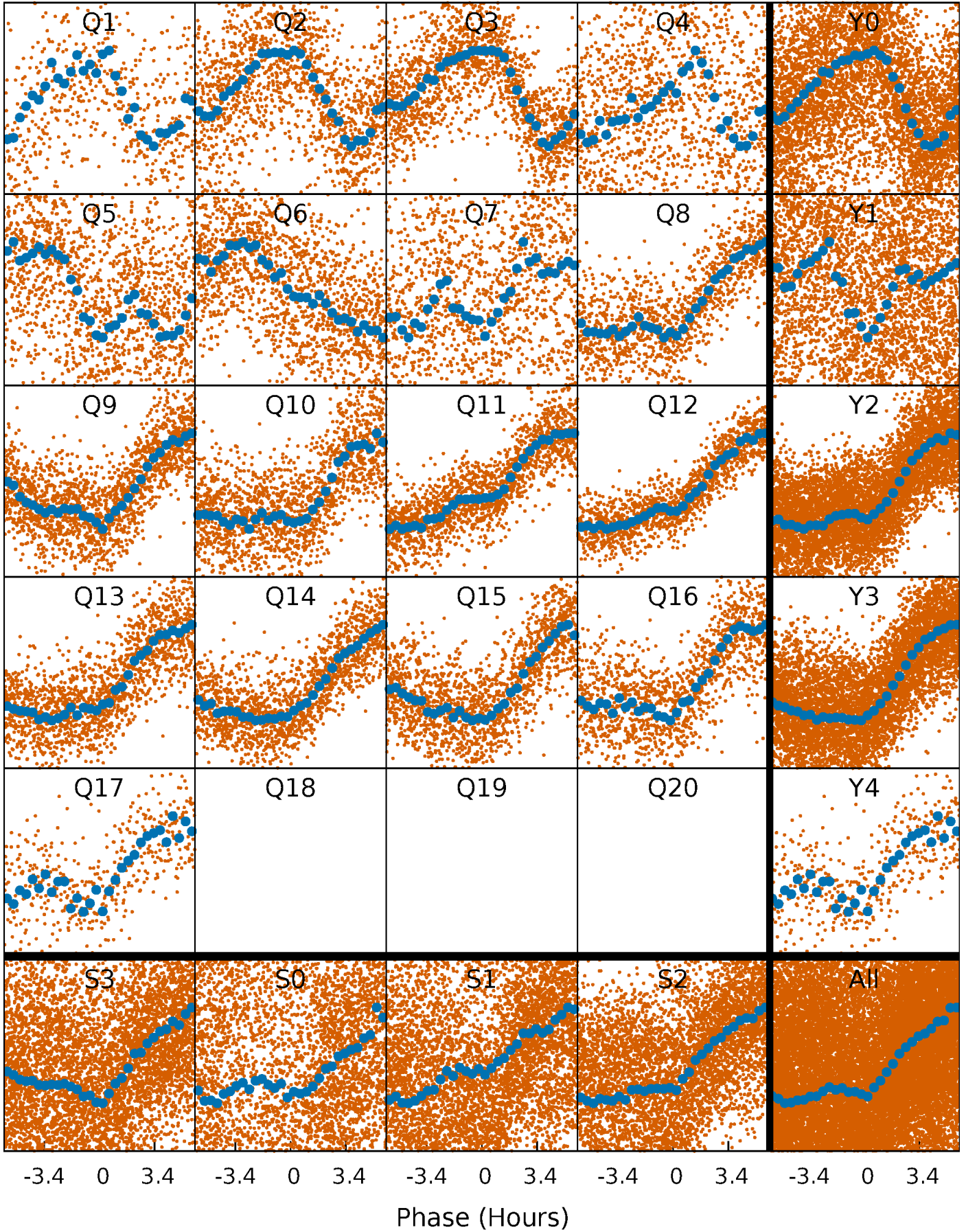


Non-Whitened Vs. Whitened Light Curve



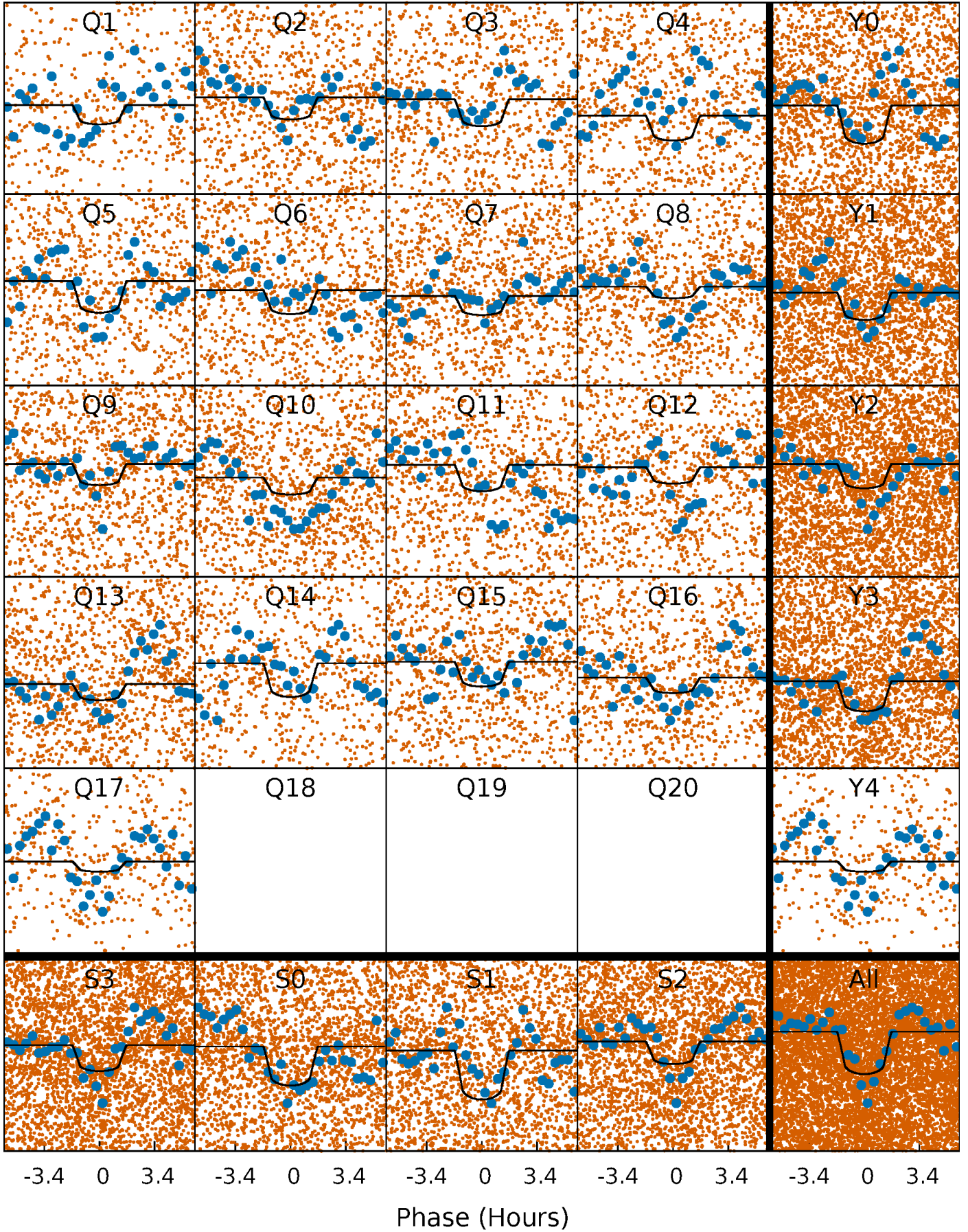
PDC Quarter-Phased Transit Curves

TCE 005084289-01 P= 1.361765 Days $T_0=131.945390$ (BKJD)



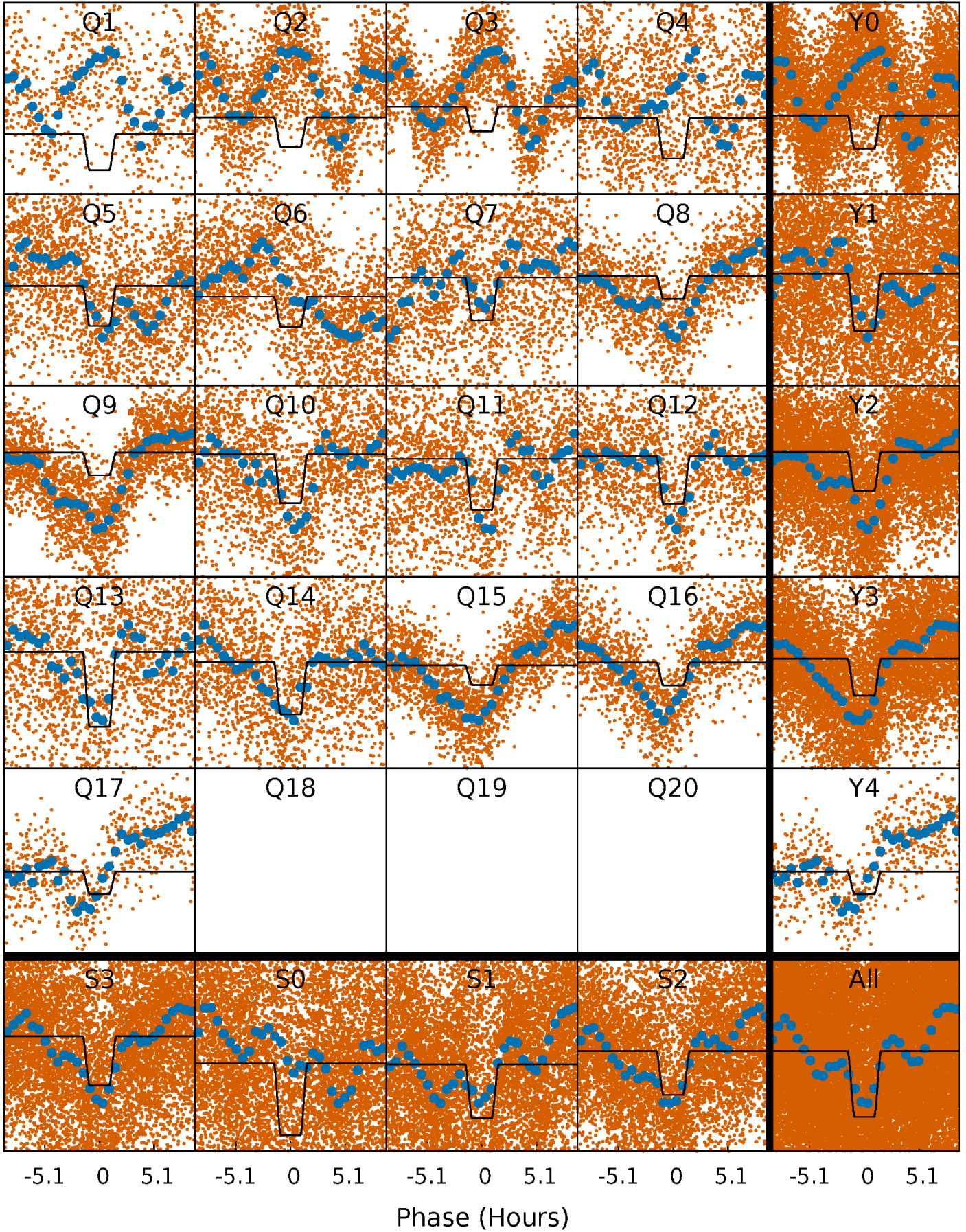
DV Quarter-Phased Transit Curves

TCE 005084289-01 P= 1.361765 Days $T_0=131.945390$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

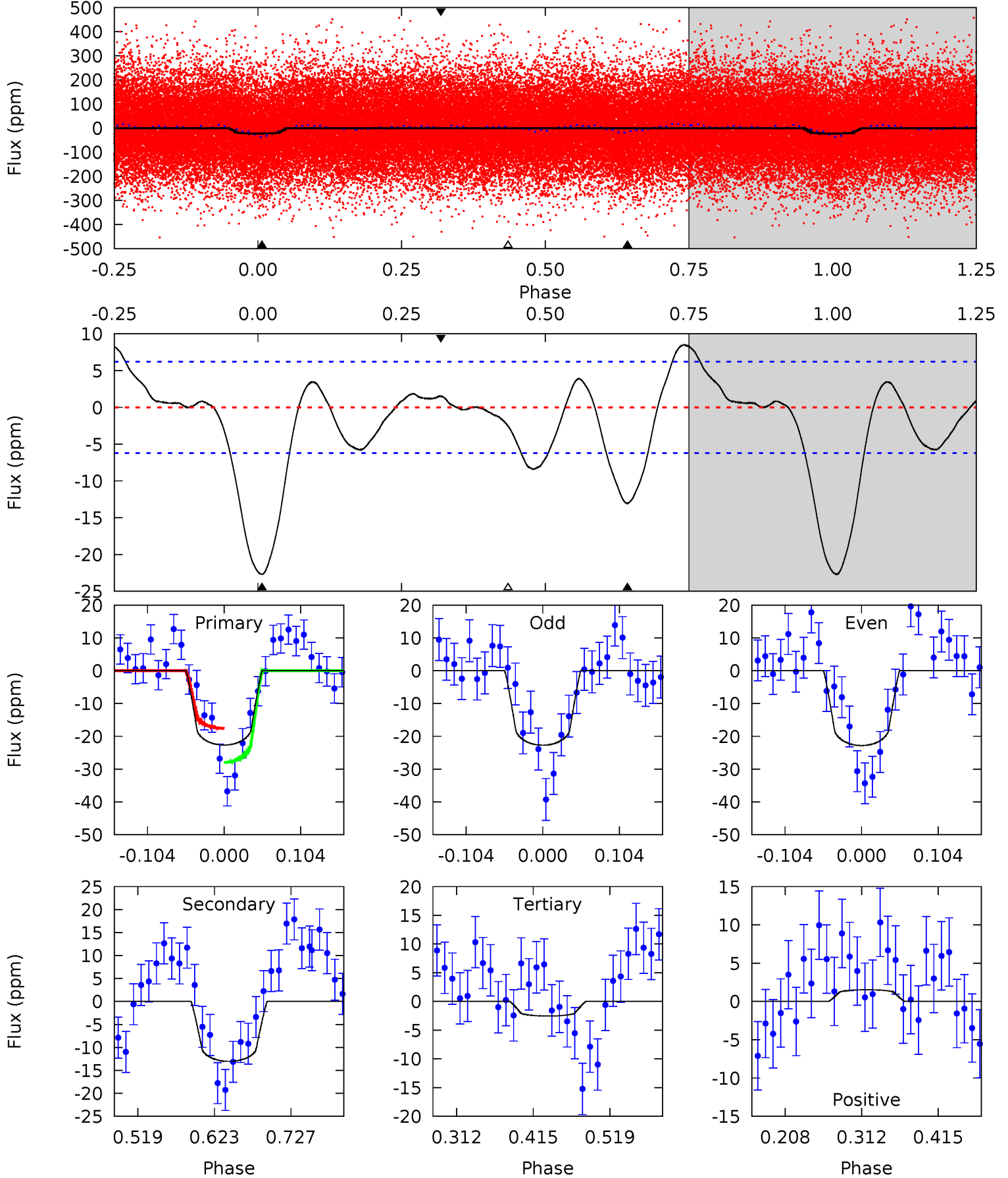
TCE 005084289-01 P= 1.361834 Days $T_0=131.913422$ (BKJD)



DV Model-Shift Uniqueness Test

005084289-01, P = 1.361765 Days, E = 130.583625 Days

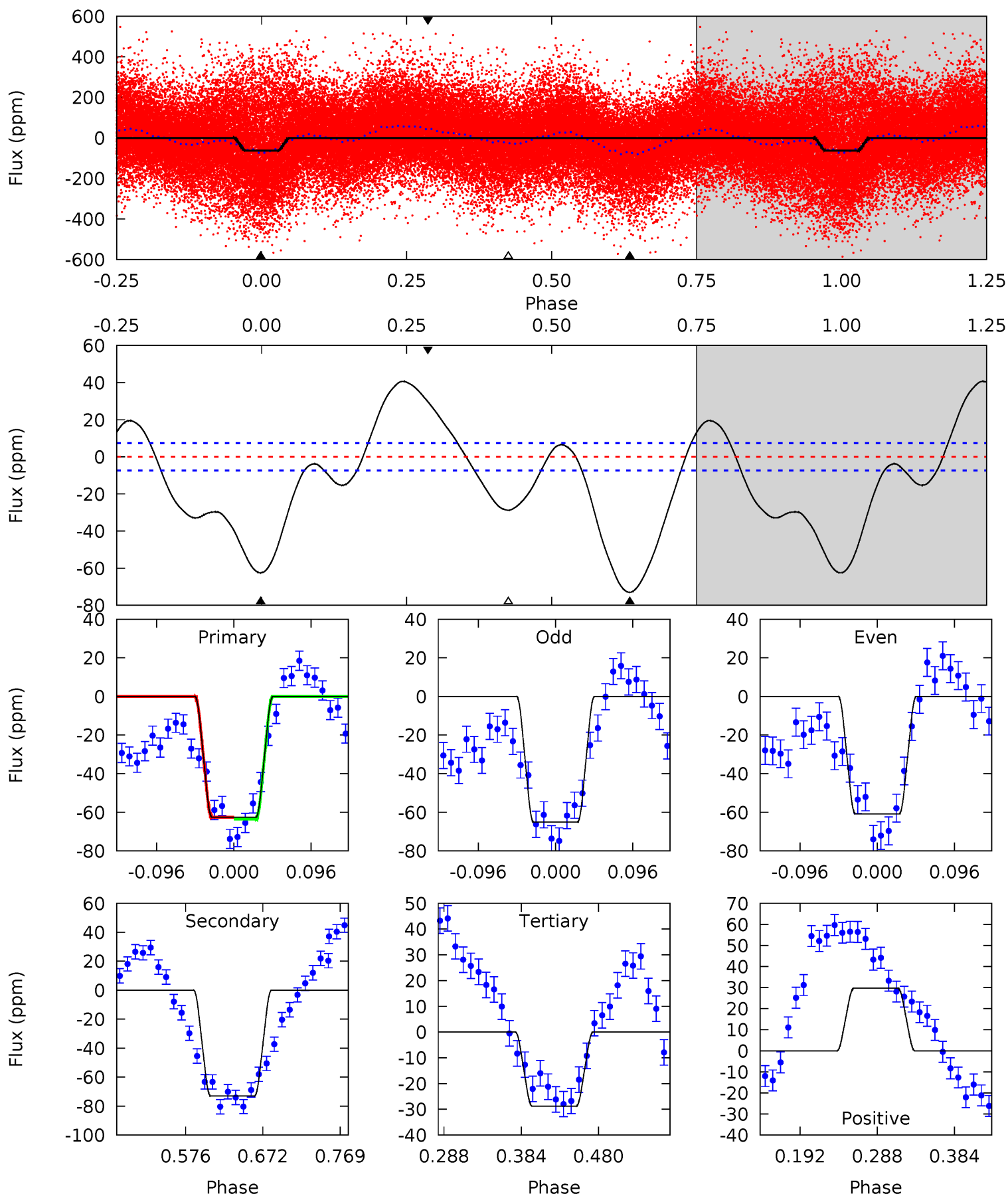
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.6	9.57	1.86	1.12	4.56	1.63	2.59	14.8	15.5	7.71	8.45	0.04	0.92	0.27	3.82



Alt Model-Shift Uniqueness Test

005084289-01, P = 1.361834 Days, E = 130.551588 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.7	45.3	17.8	18.4	4.57	1.66	13.0	20.9	20.3	27.4	26.8	1.33	0.73	0.36	0.31



Stellar Parameters For KIC 005084289

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6796^{+190}_{-214}	$3.753^{+0.312}_{-0.078}$	$-0.460^{+0.300}_{-0.250}$	$2.595^{+0.417}_{-0.904}$	$1.391^{+0.231}_{-0.257}$	$0.112^{+0.229}_{-0.035}$
	+3%/-3%	+8%/-2%	+65%/-54%	+16%/-35%	+17%/-18%	+204%/-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 005084289-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13 ± 1	$1.34^{+0.35}_{-0.37}$	4020^{+236}_{-371}	5594^{+791}_{-548}	$2.902^{+2.353}_{-1.073}$
Alt.	-73 ± 2	$2.52^{+0.45}_{-0.49}$	4022^{+237}_{-342}	6376^{+492}_{-401}	$4.710^{+2.234}_{-1.279}$

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

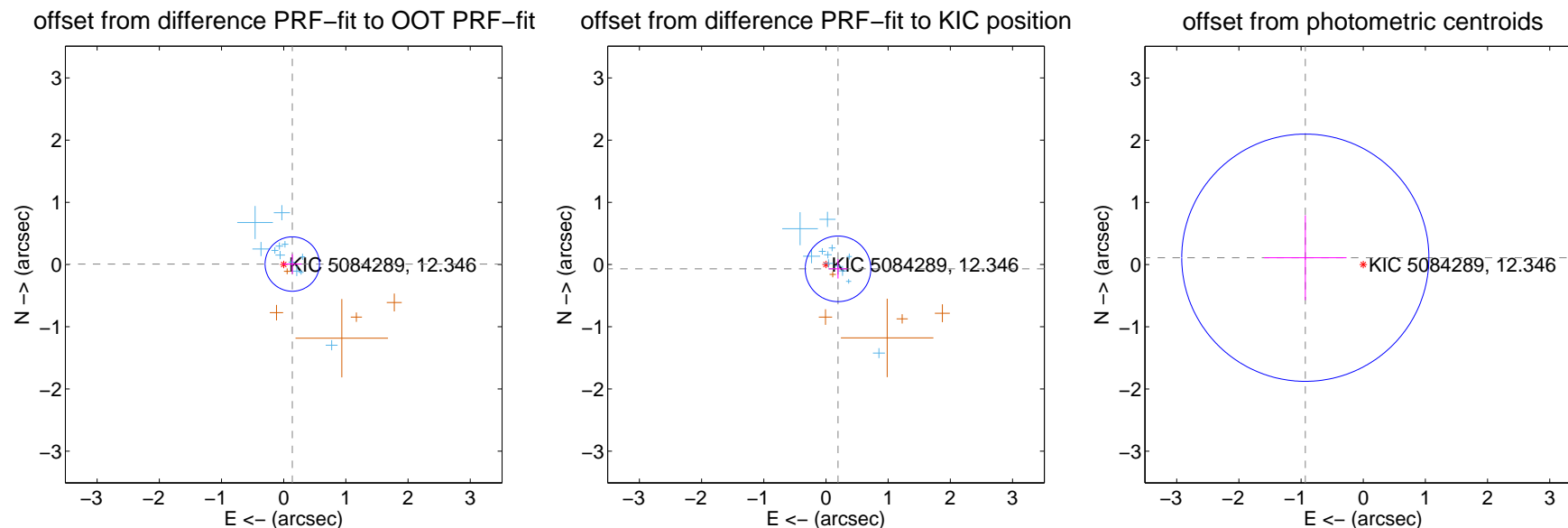
DV Centroid Data

Supplemental centroid analysis for 005084289-01. Kepler magnitude: 12.35. Transit SNR 9.21

There are 12 quarters with good PRF difference image offsets

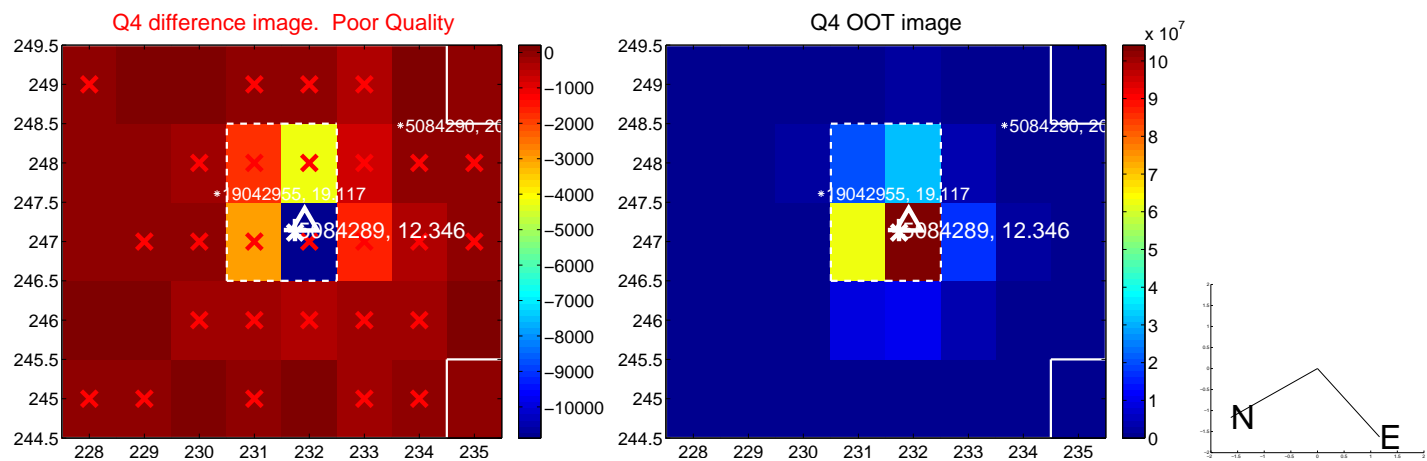
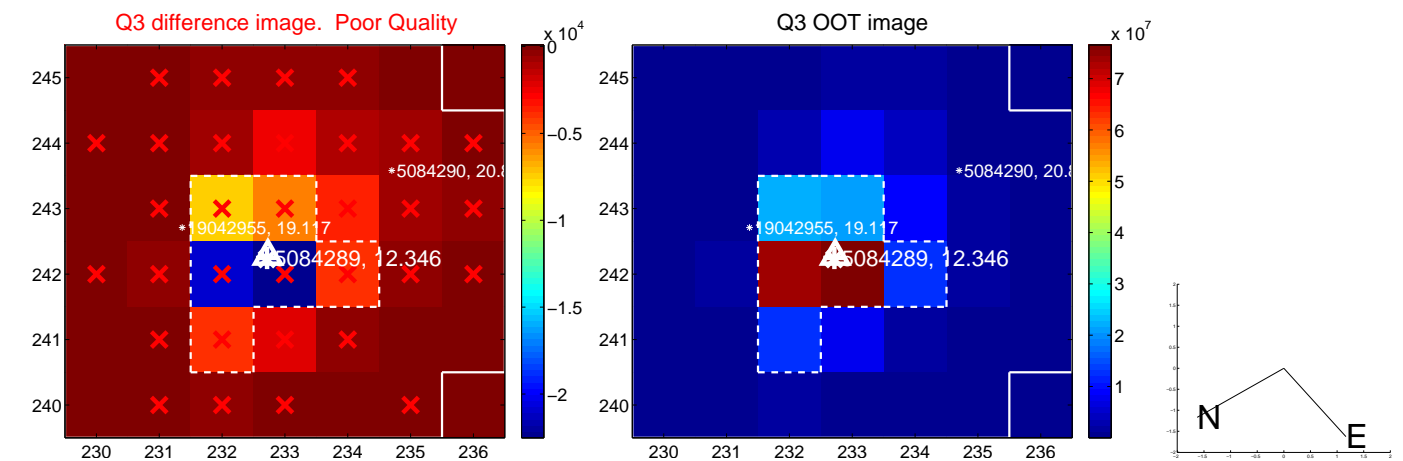
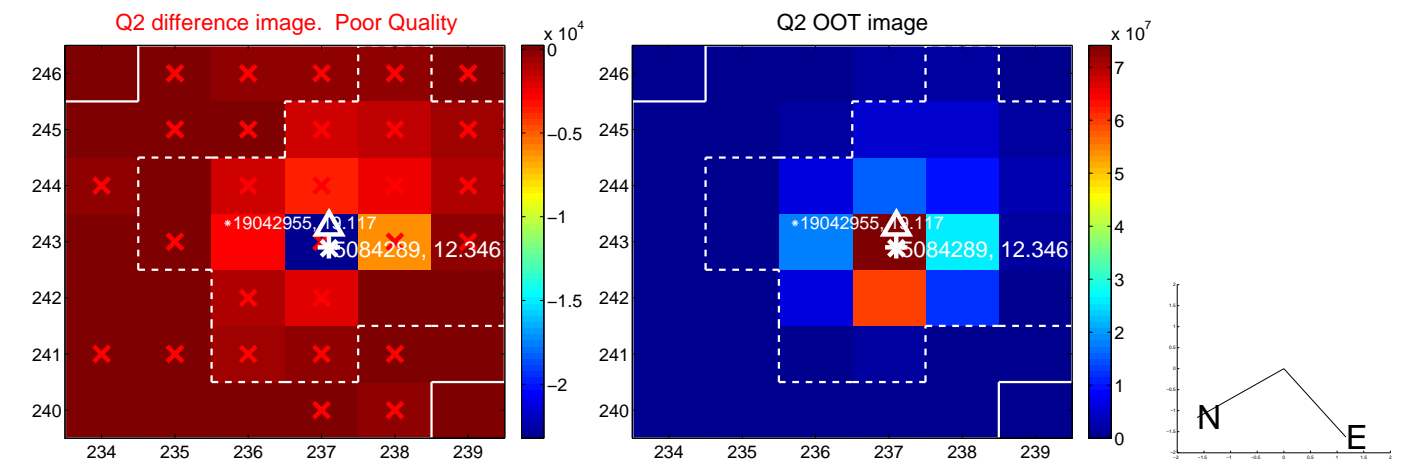
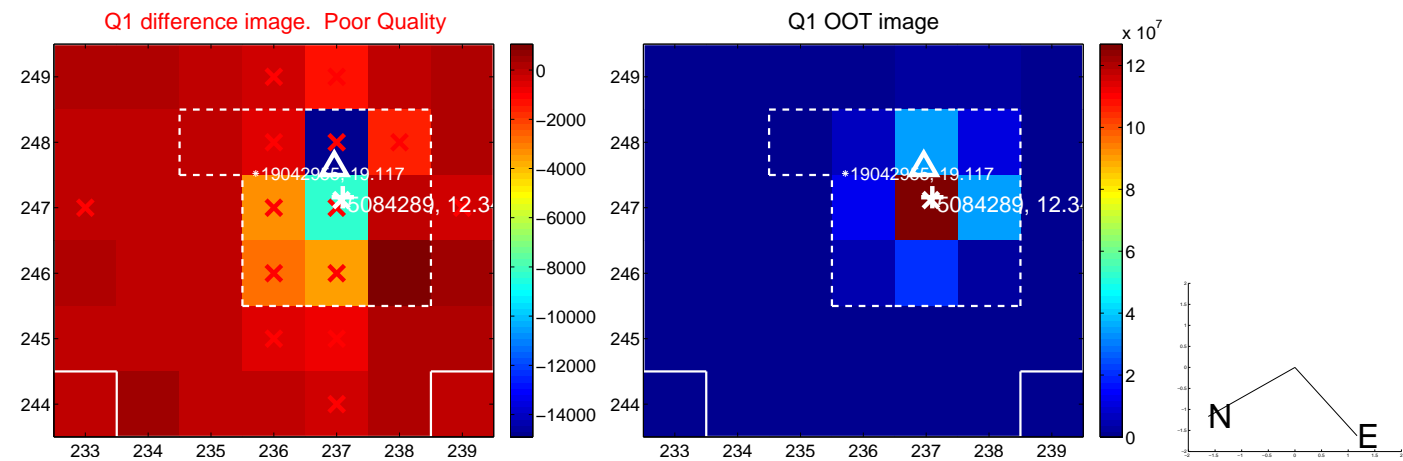
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.138 ± 0.146	0.95	-0.138 ± 0.151	0.008 ± 0.158
PRF-fit source offset from KIC position	0.206 ± 0.176	1.17	-0.194 ± 0.150	-0.069 ± 0.155
photometric centroid source offset	0.94 ± 0.66	1.42	0.93 ± 0.66	0.11 ± 0.68

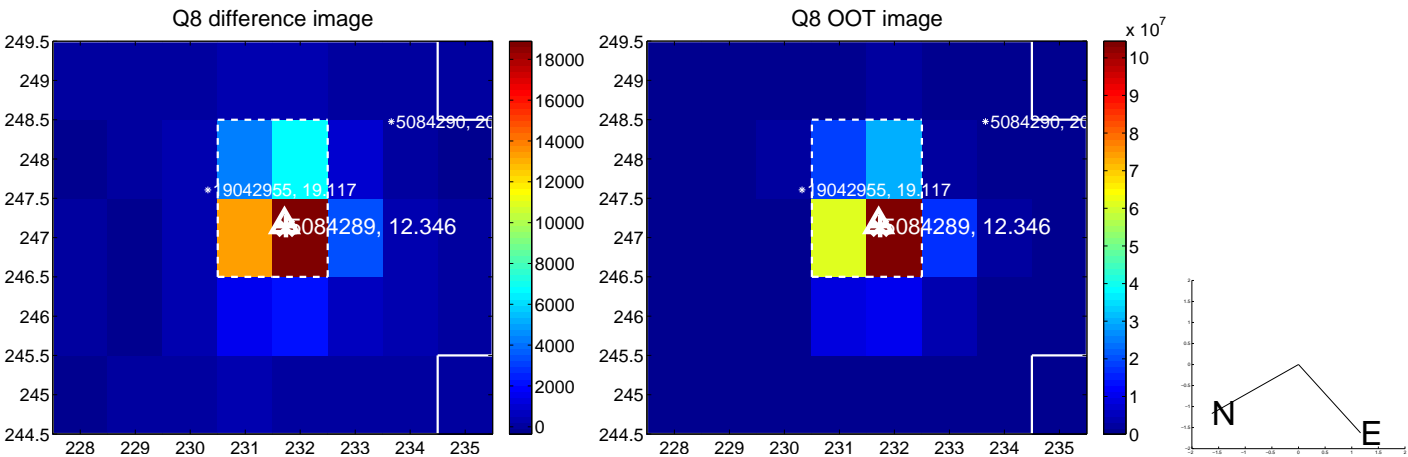
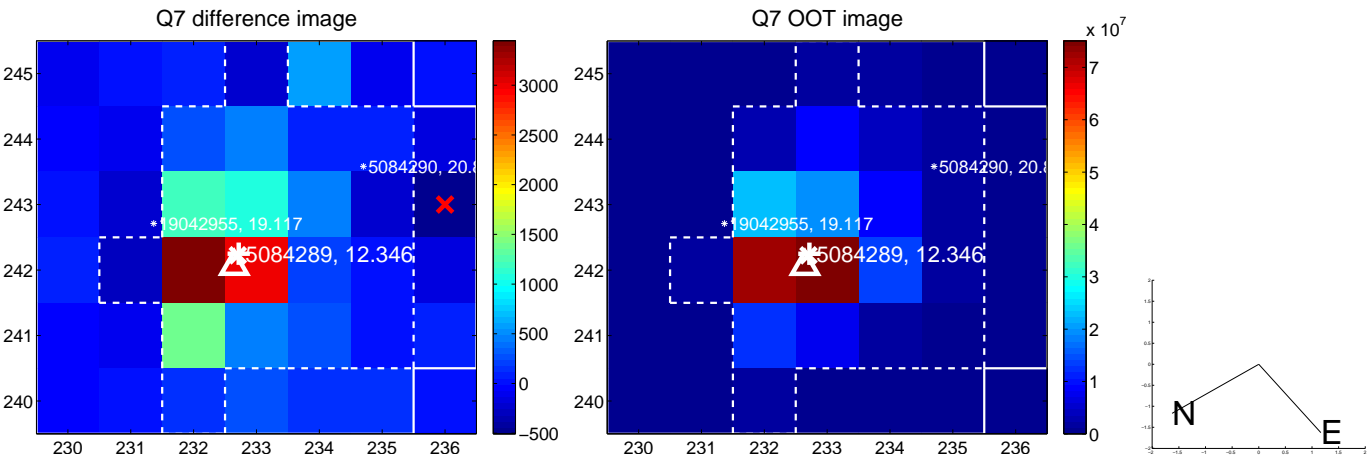
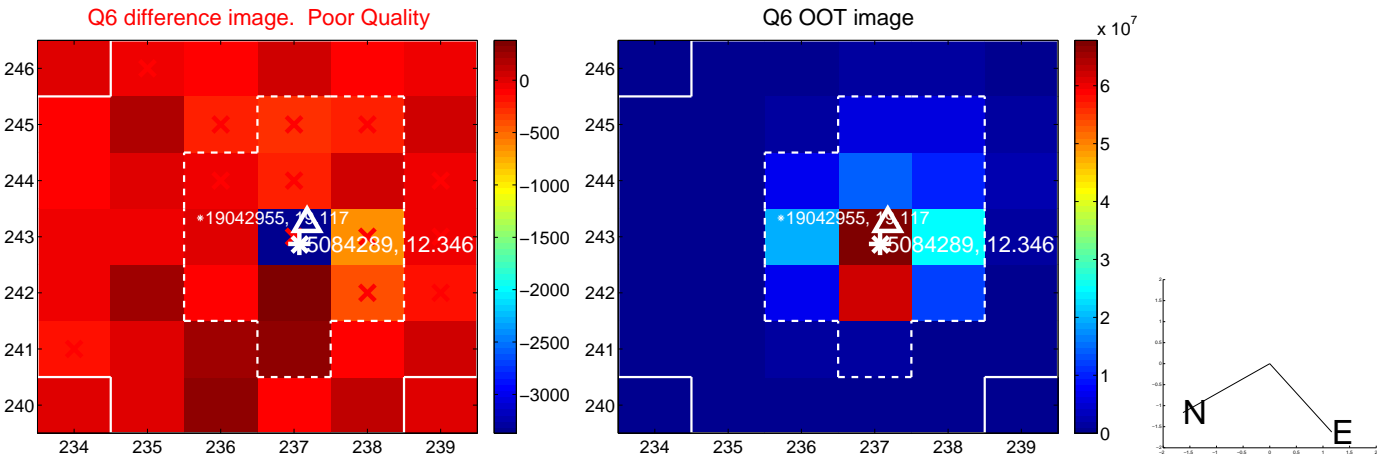
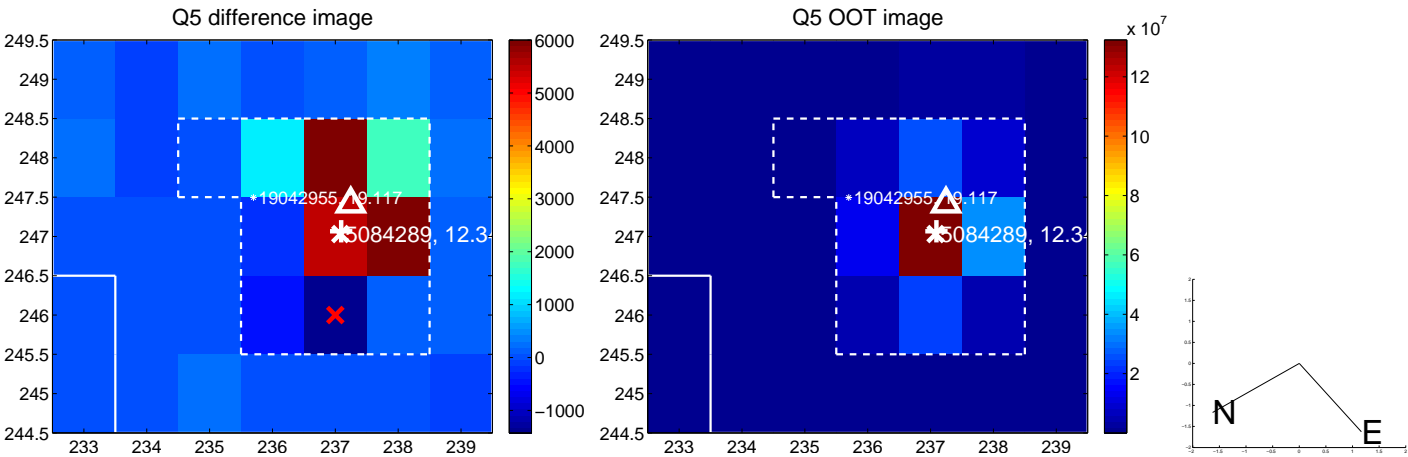


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

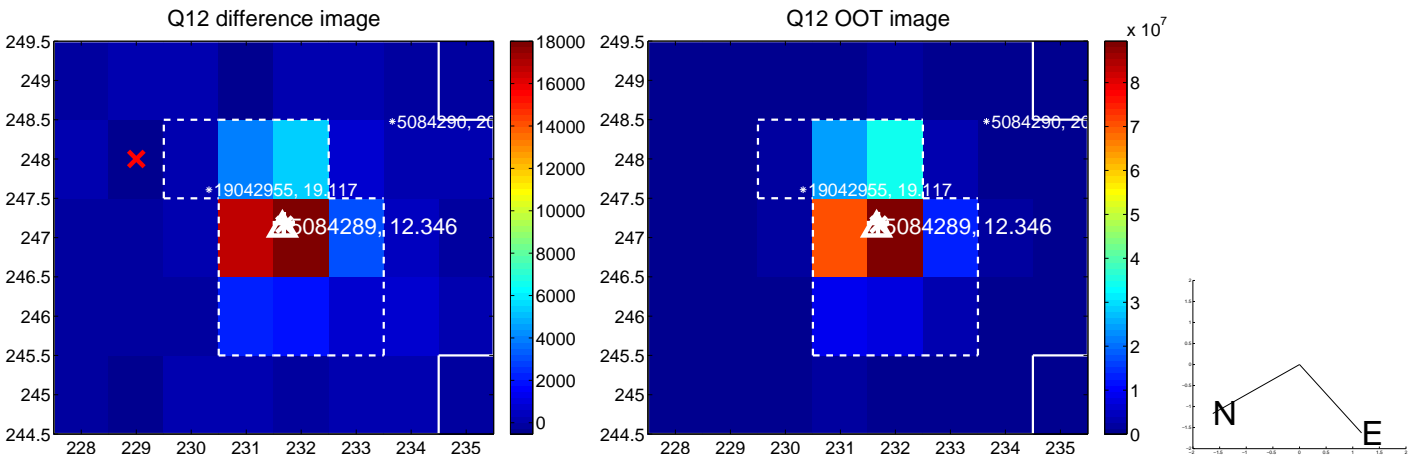
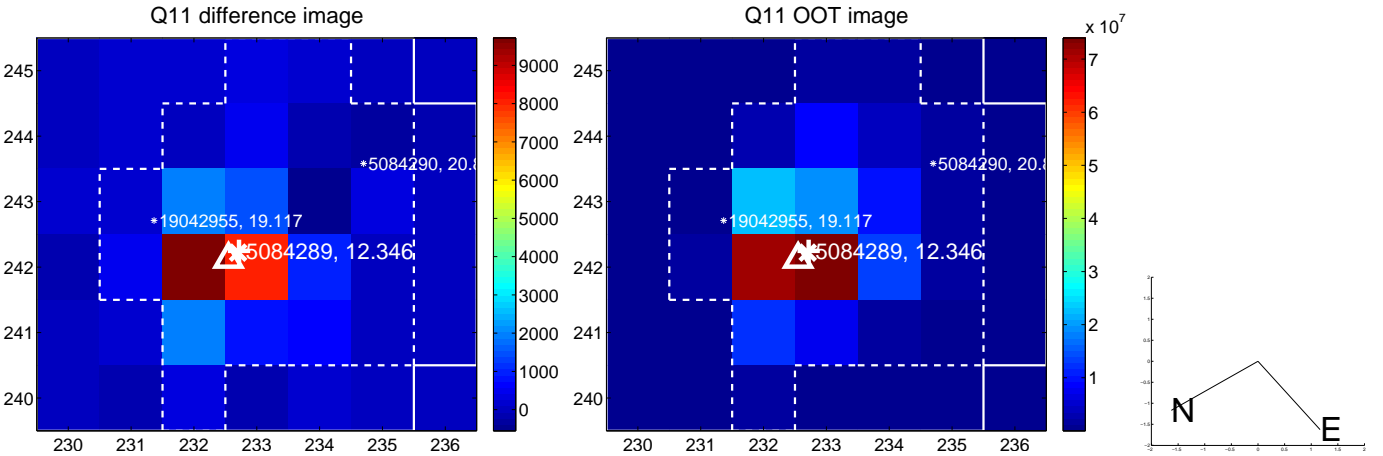
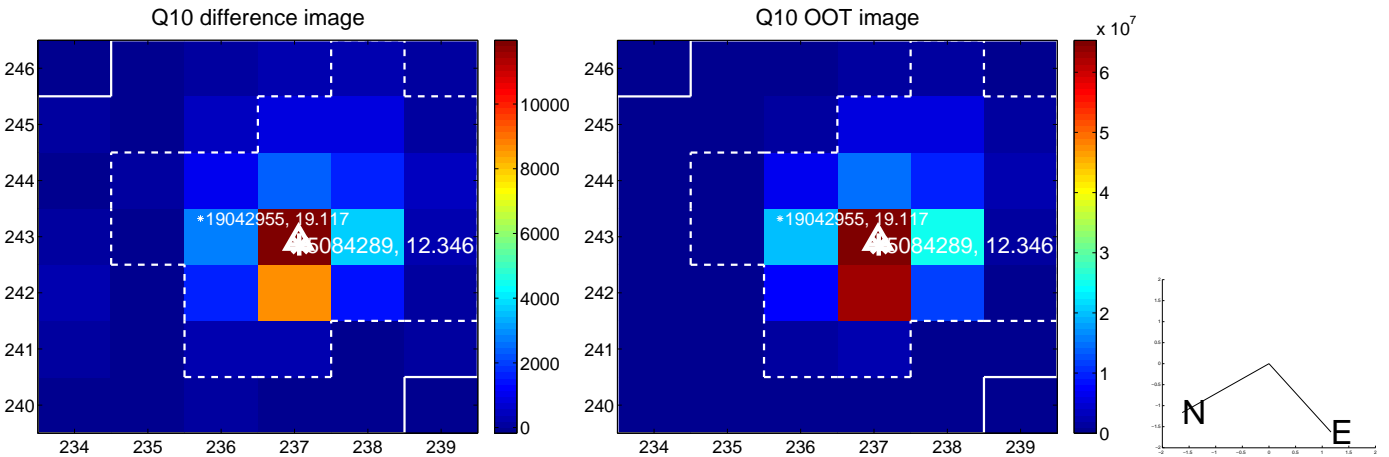
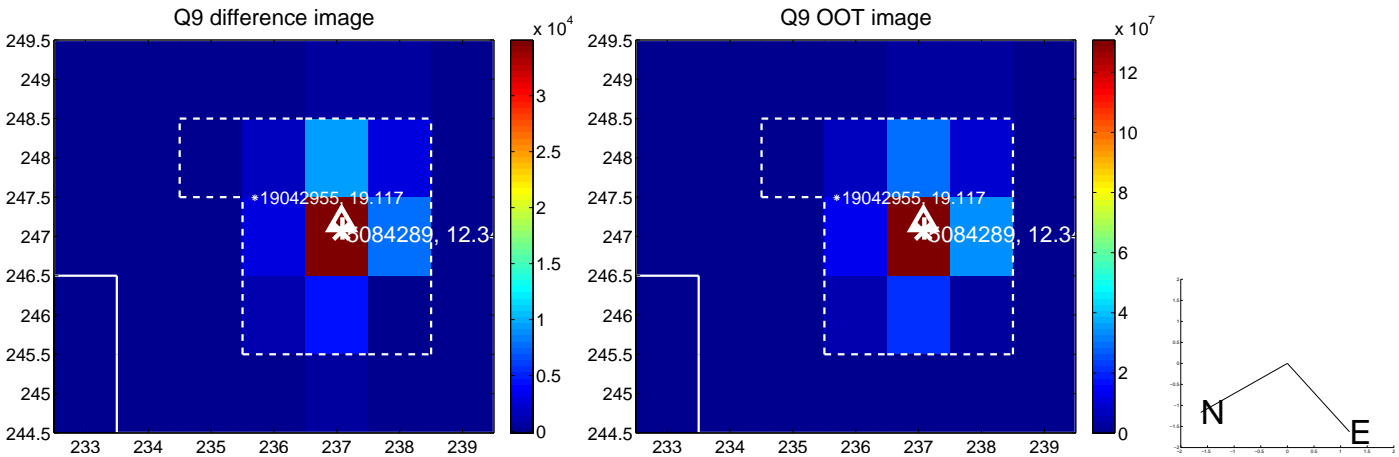
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



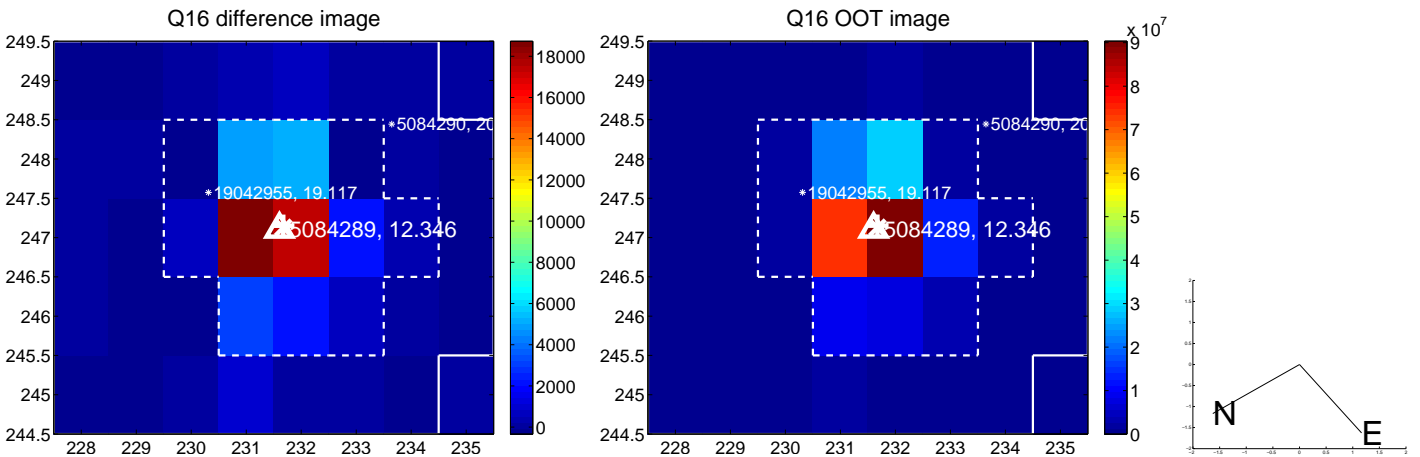
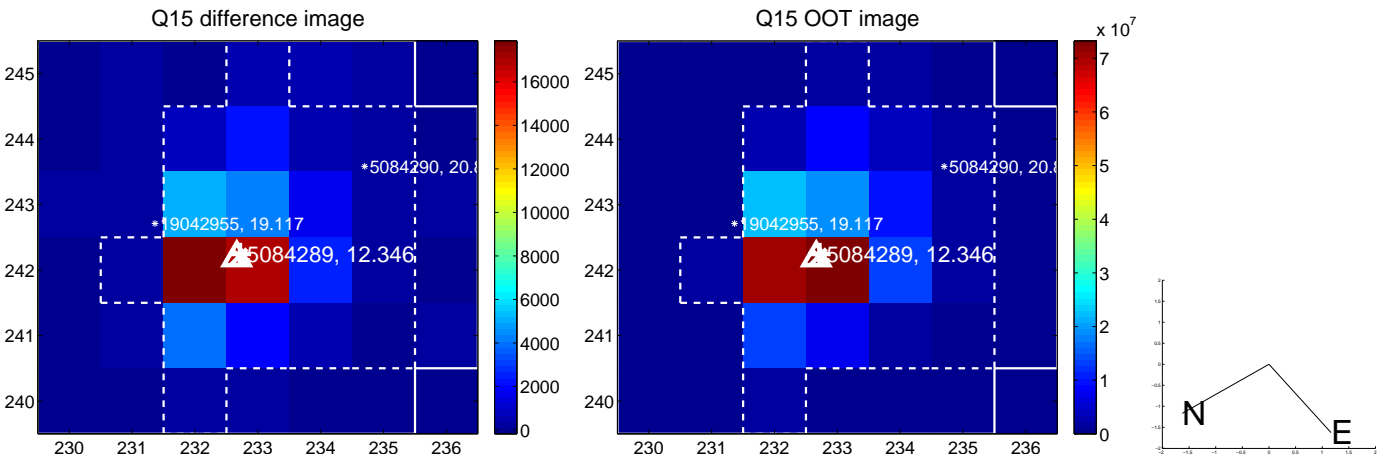
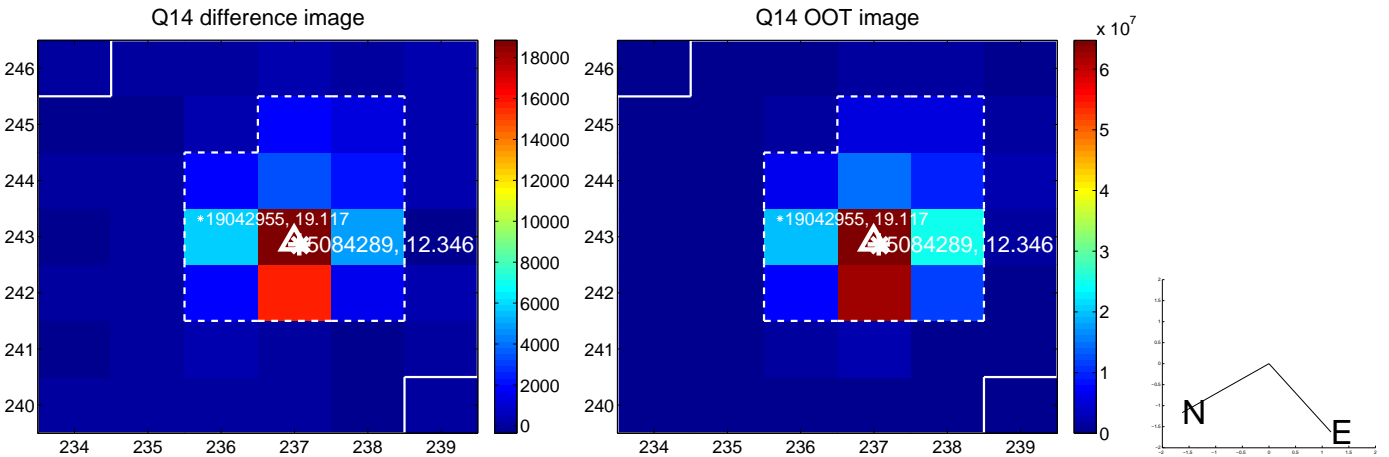
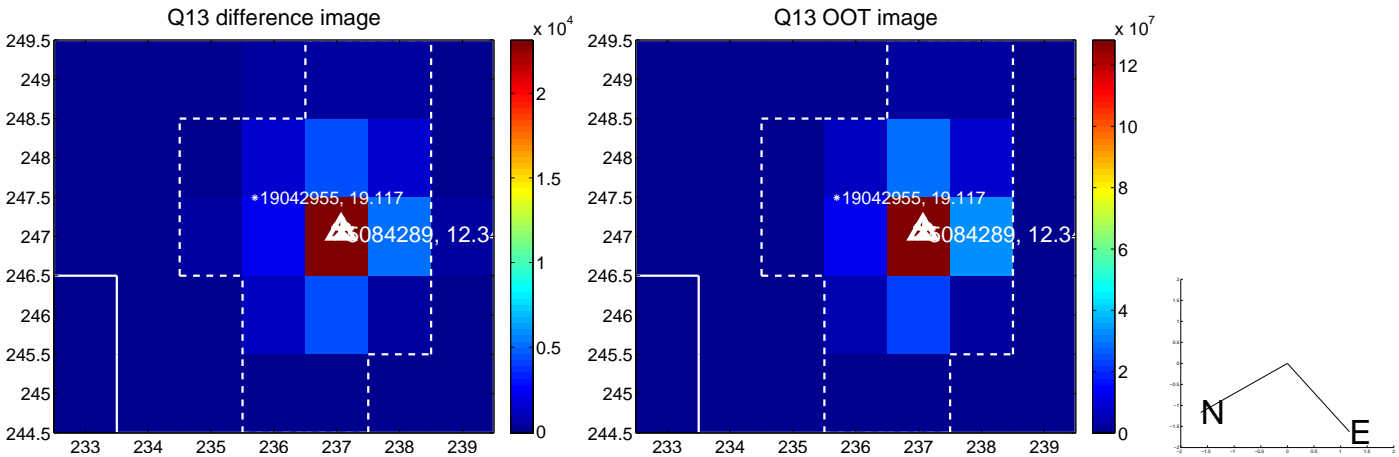
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



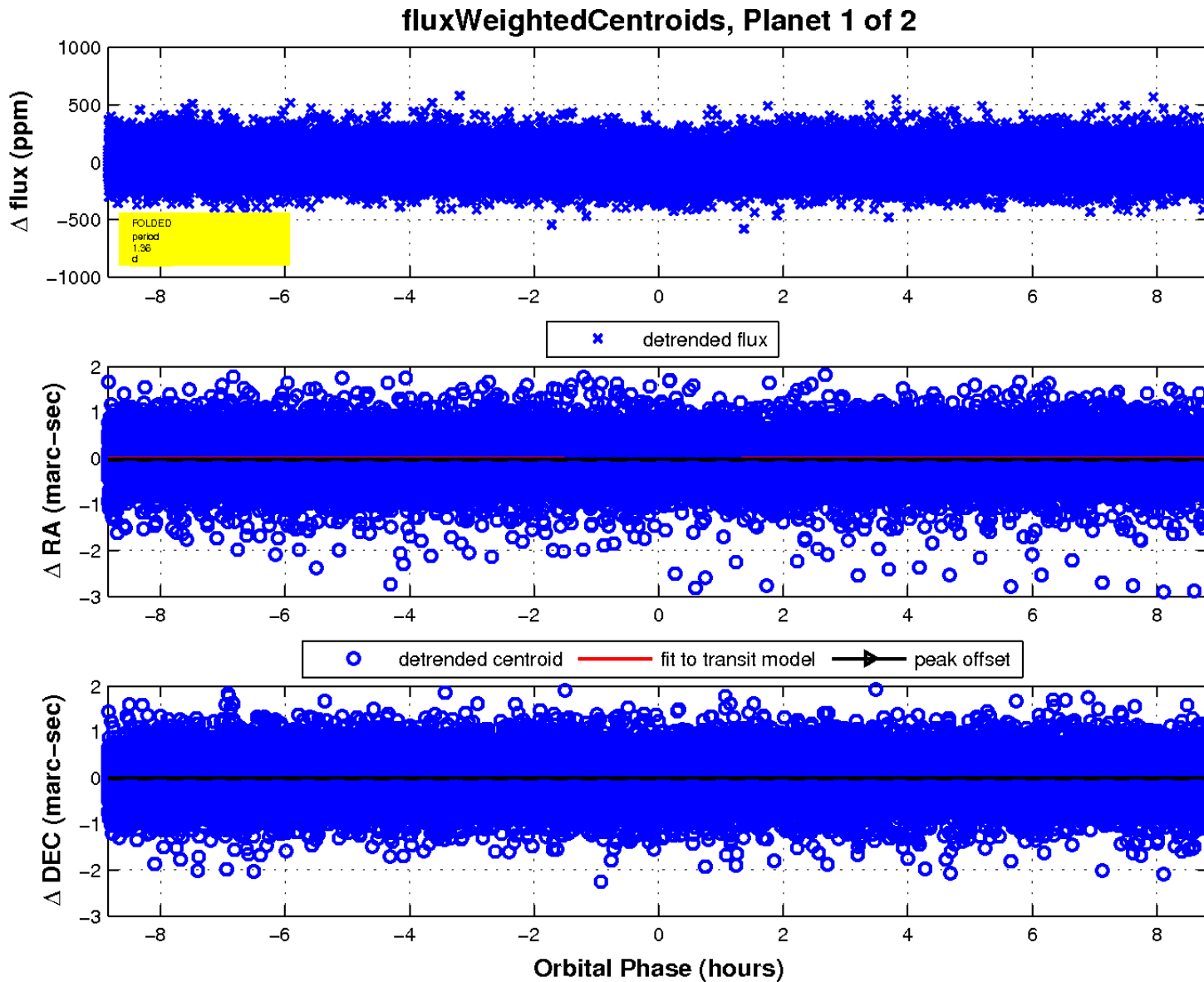
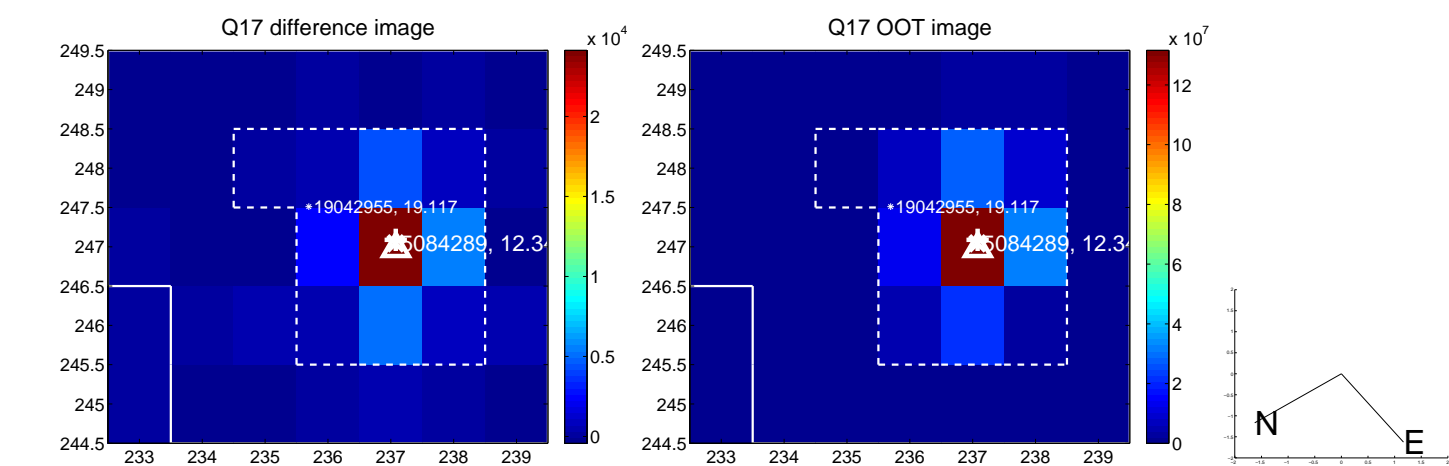
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

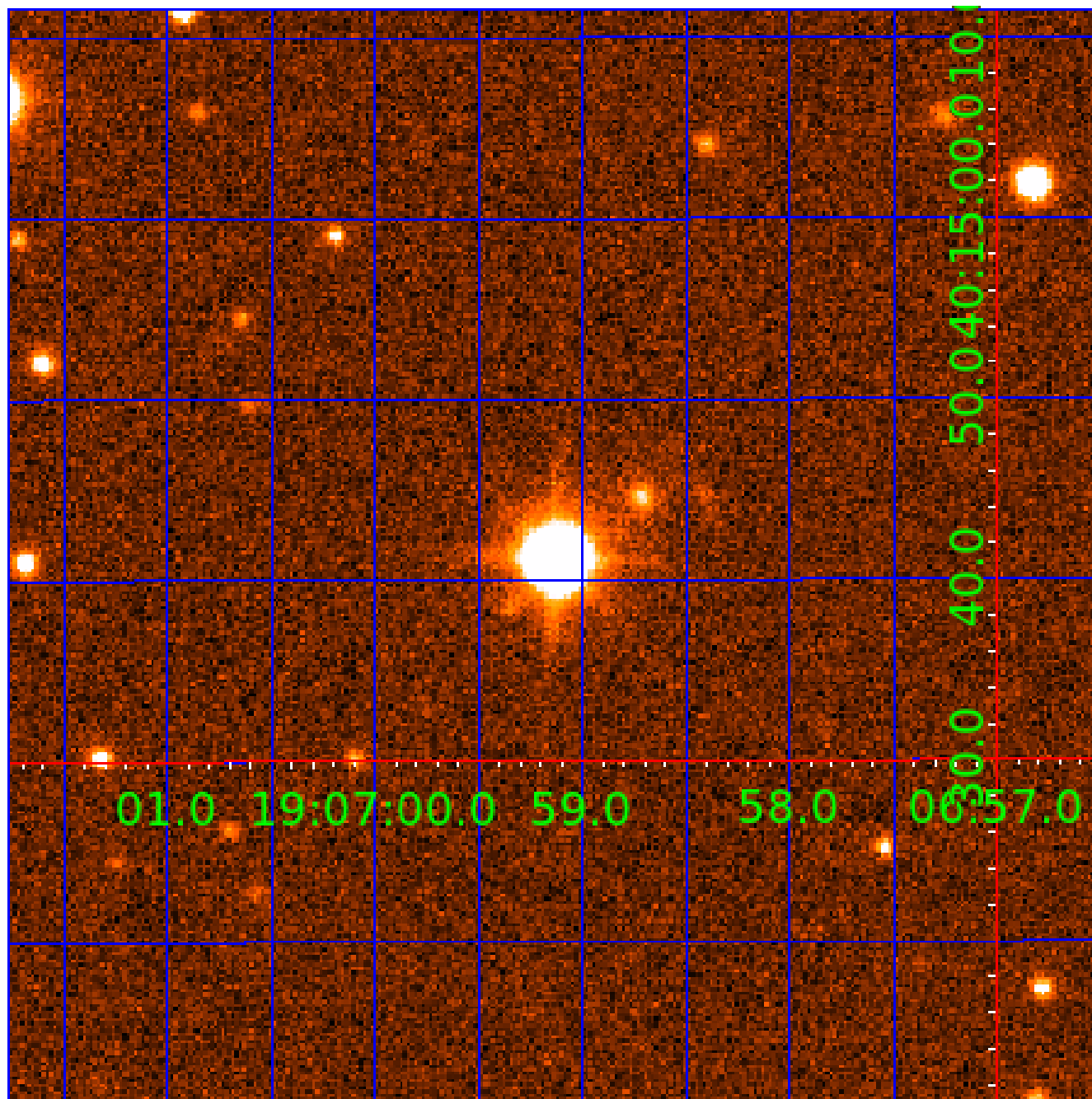


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005084289

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})
005084289-01	OBS	No	1.361765	131.945390	21.9	2.948	11.6	9.2	2.60	6796	1.42	17859.25
005084289-02	OBS	No	1.362005	132.992340	0.0	3.217	8.1	0.0	2.60	6796	0.01	17855.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005084289-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005084289-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

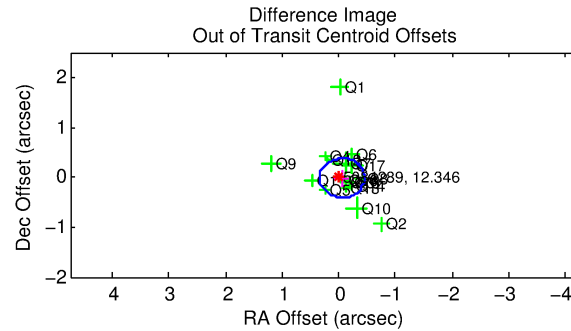
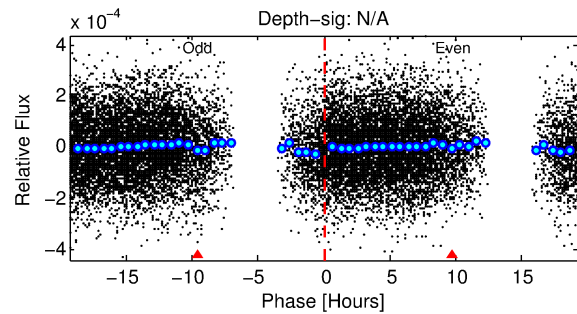
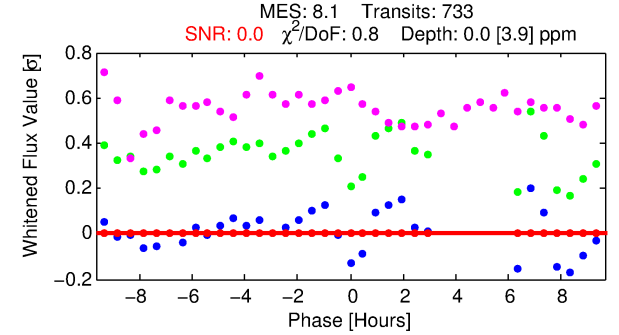
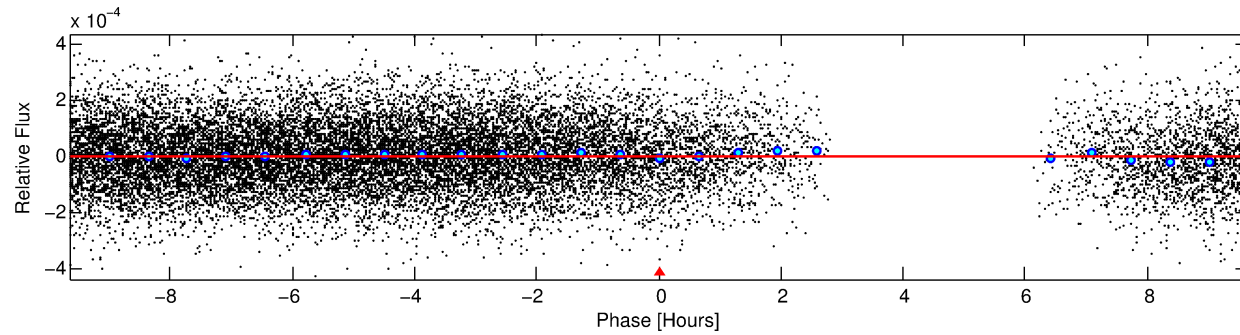
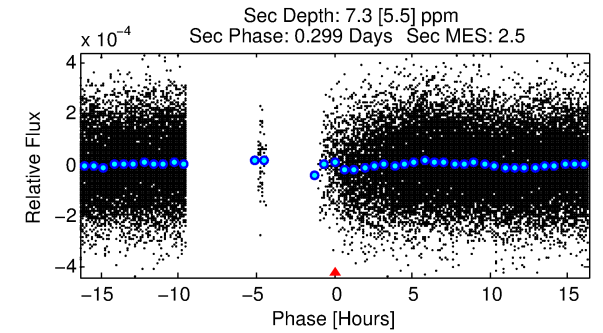
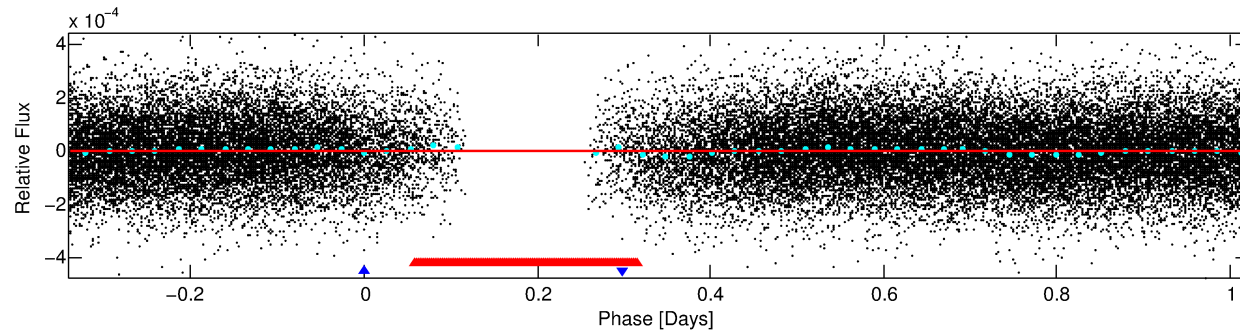
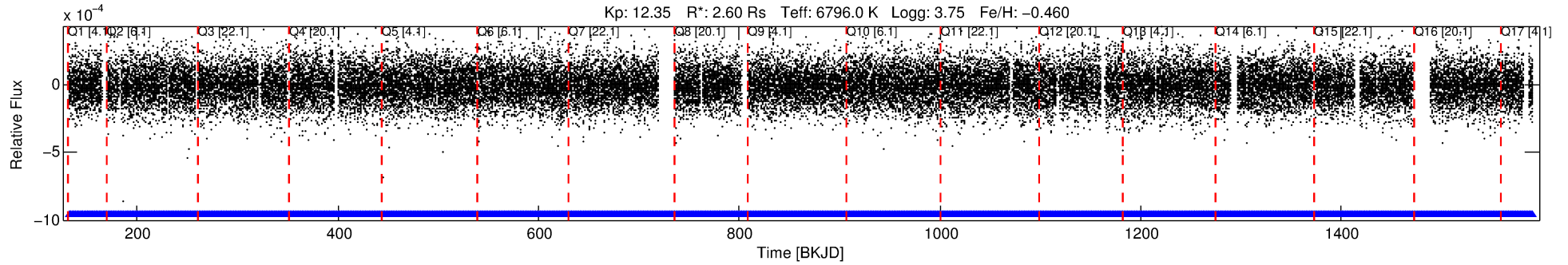
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005084289-02

No Significant Match Found

DV One-Page Summary

KIC: 5084289 Candidate: 2 of 2 Period: 1.362 d



DV Fit Results:

Period = 1.36200 [0.42491] d
Epoch = 132.9923 [71.3002] BKJD
Rp/R* = 0.0000 [0.0550]
a/R* = 1.63 [202.72]
b = 0.91 [86.45]
Seff = 17855.06 [12269.57]
Teq = 2948 [506] K
Rp = 0.01 [15.56] Re
a = 0.0268 [0.0106] AU
Ag = 21330.26 [57149356.83] [0.00σ]
Teffp = 55075 [36893445] K [0.00σ]

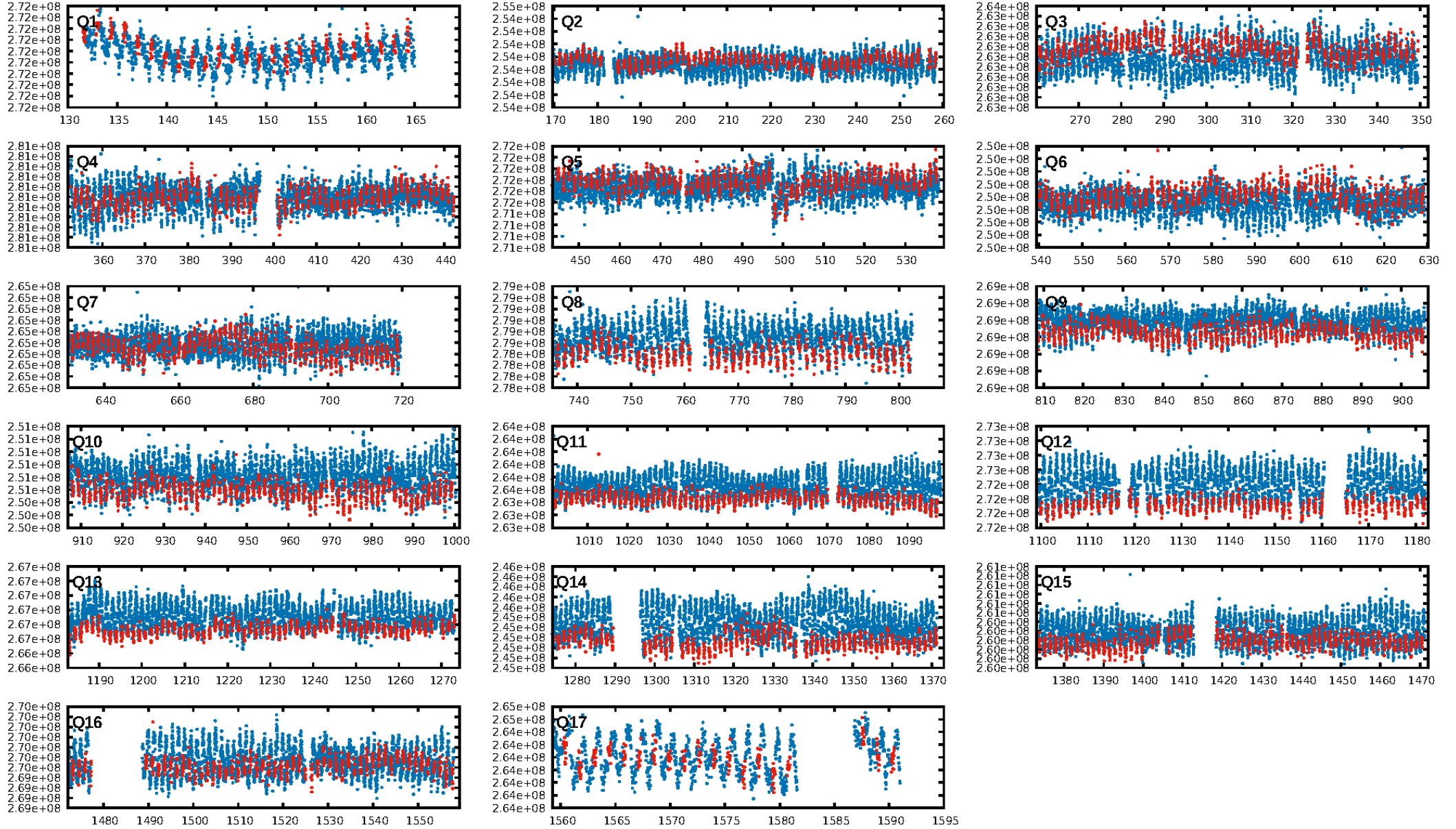
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.20e-13
RollingBand-fgt: 1.00 [708/708]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.061 arcsec [0.46σ]
KicOffset-rm: 0.279 arcsec [2.12σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.59 [10/17]
DiffImageOverlap-fno: 0.00 [0/17]

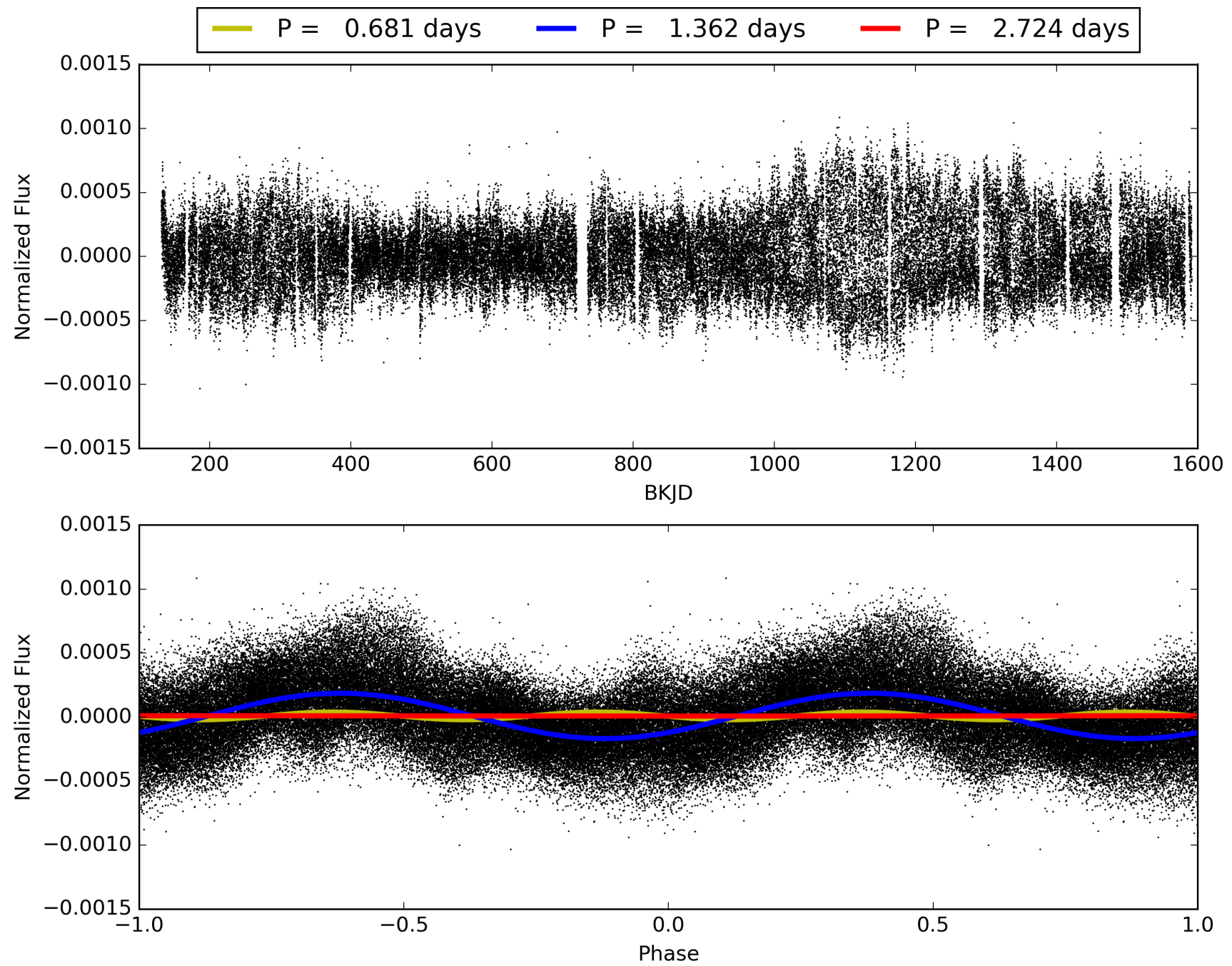
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 08:14:14 Z

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

TCE 005084289-02, PDC Light Curves

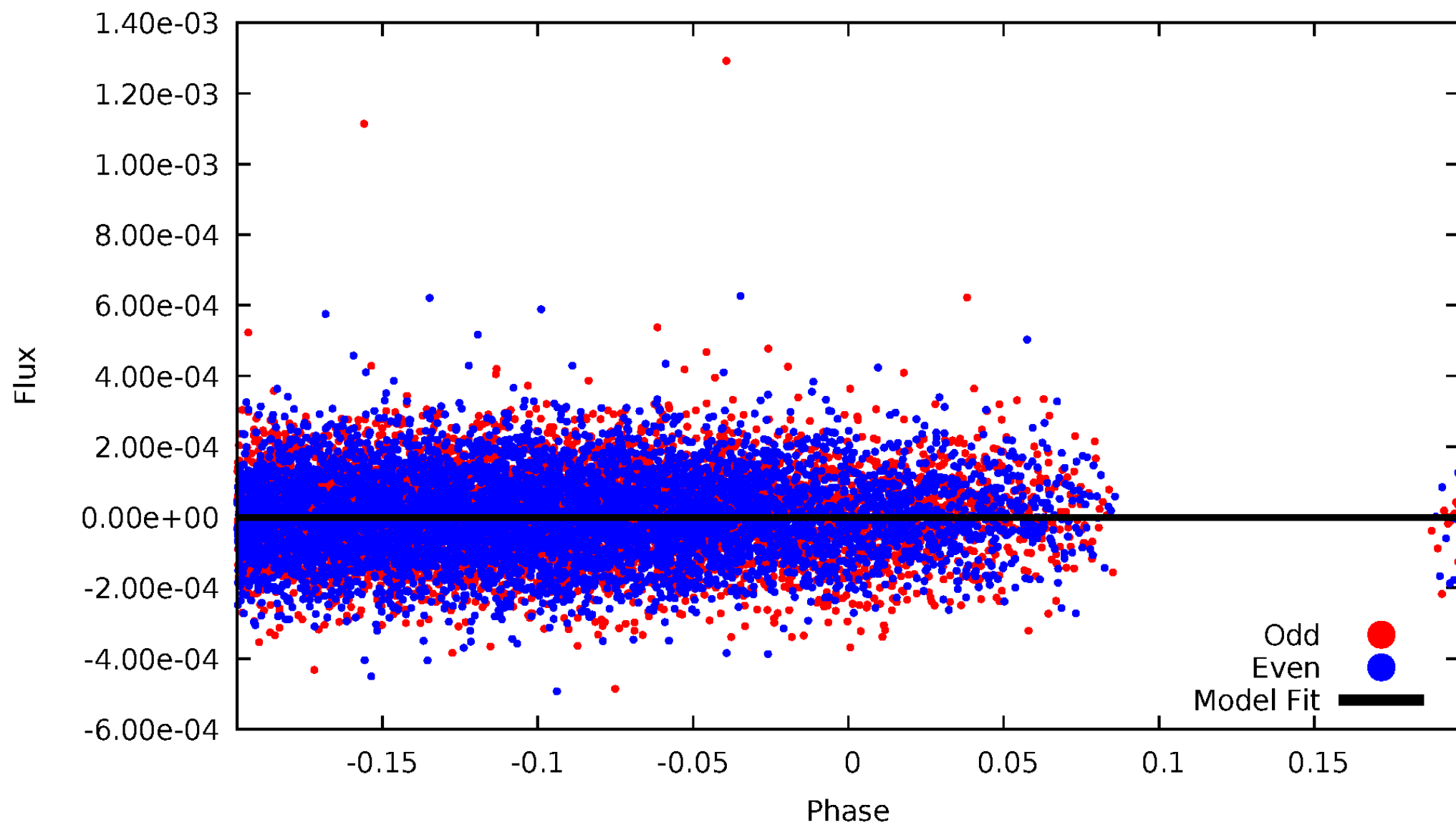


TCE 005084289-02



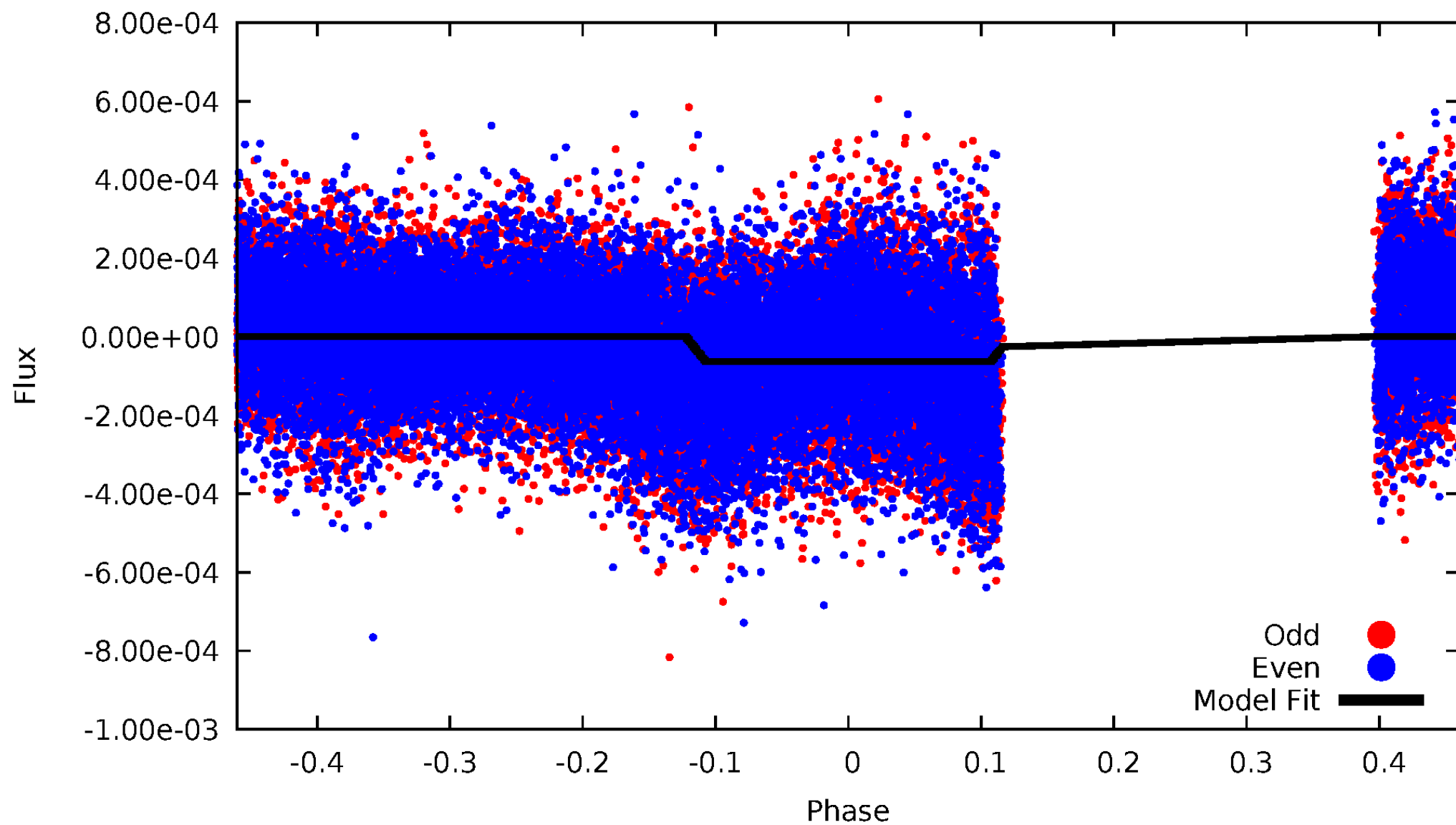
DV Odd/Even

TCE 005084289-02



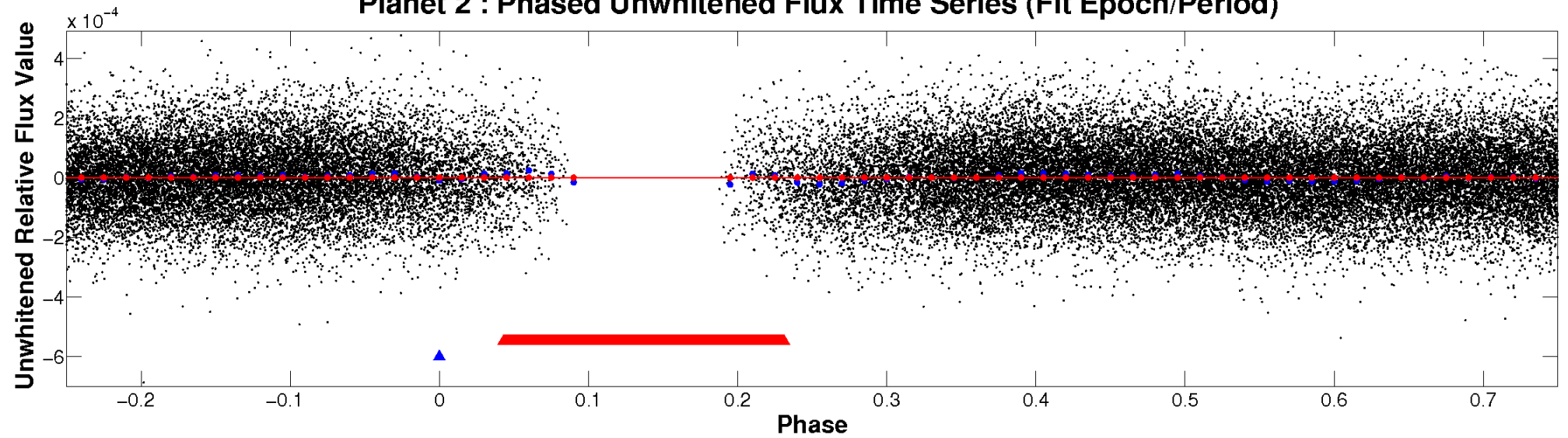
ALT Odd/Even

TCE 005084289-02

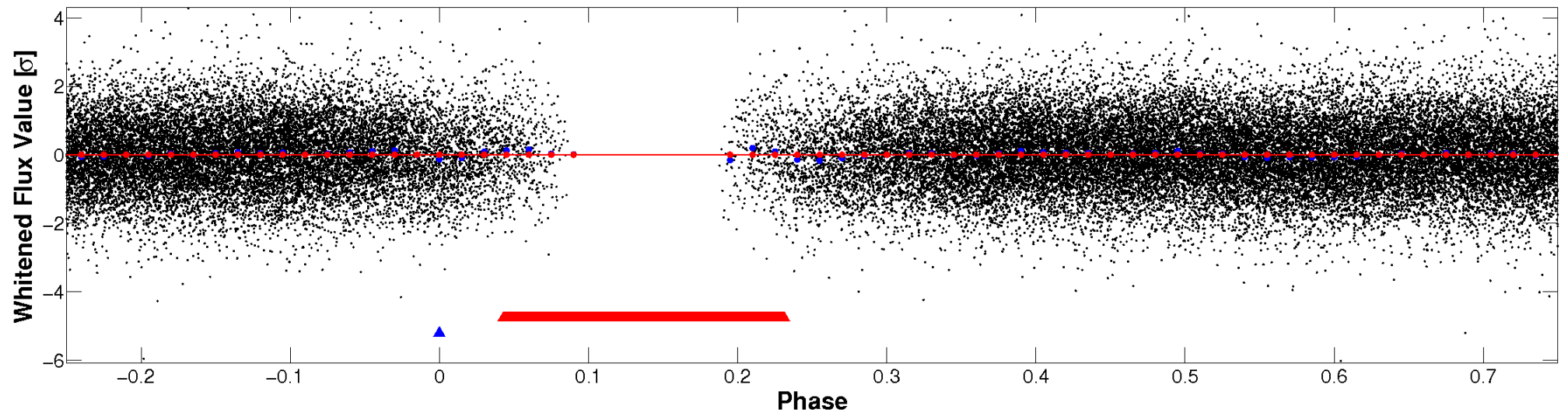


Non-Whitened Vs. Whitened Light Curve

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

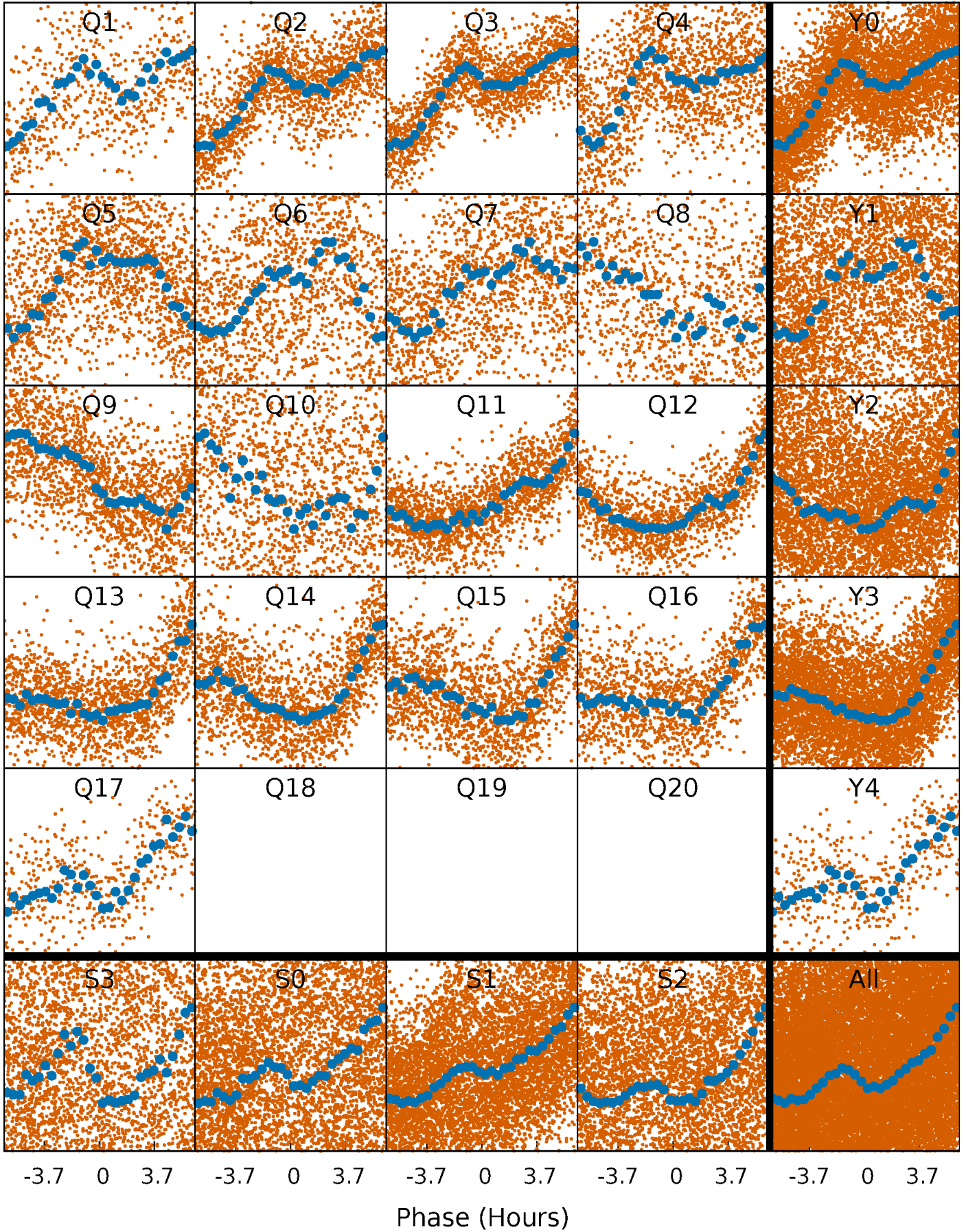


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



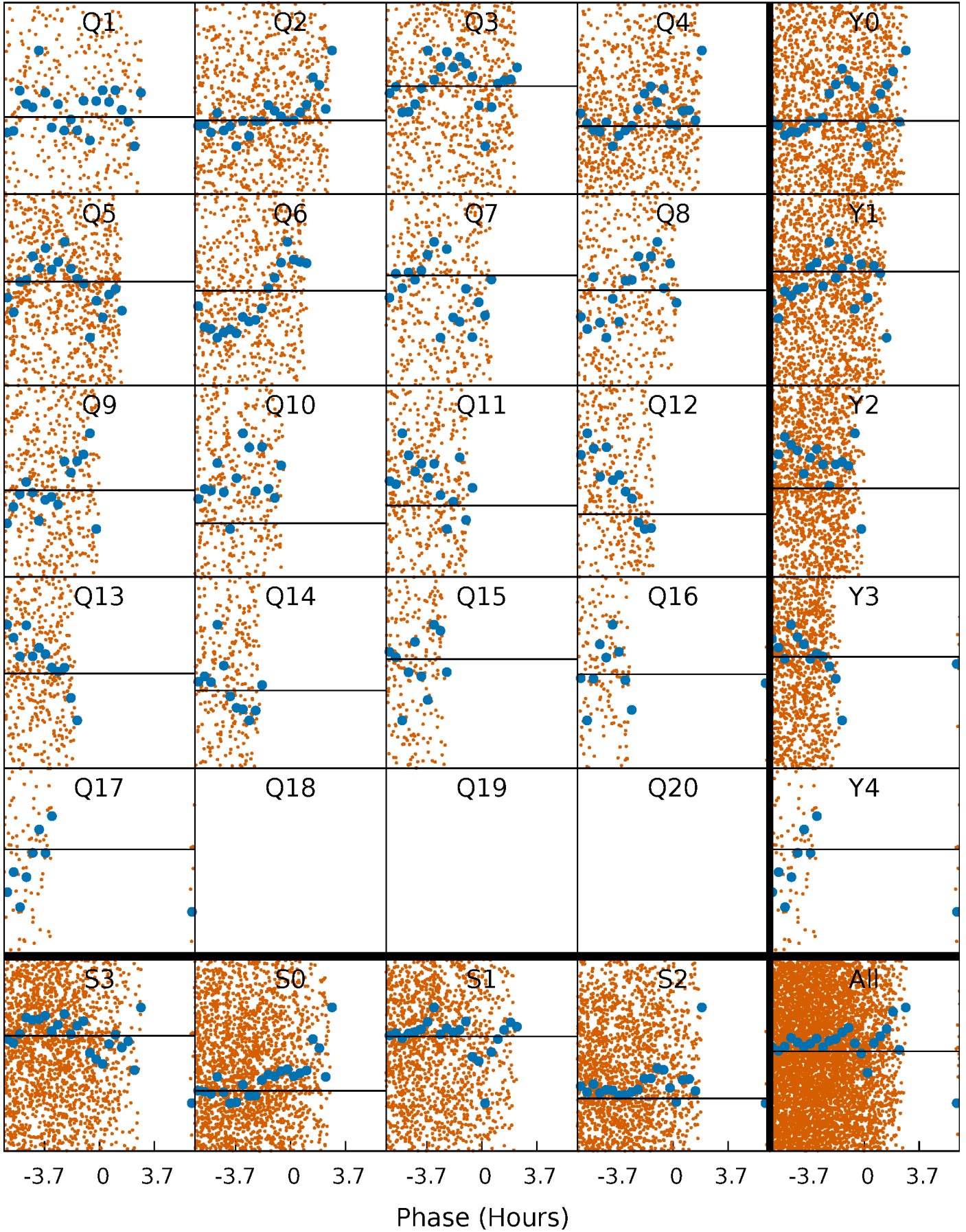
PDC Quarter-Phased Transit Curves

TCE 005084289-02 P= 1.362005 Days $T_0=132.992340$ (BKJD)



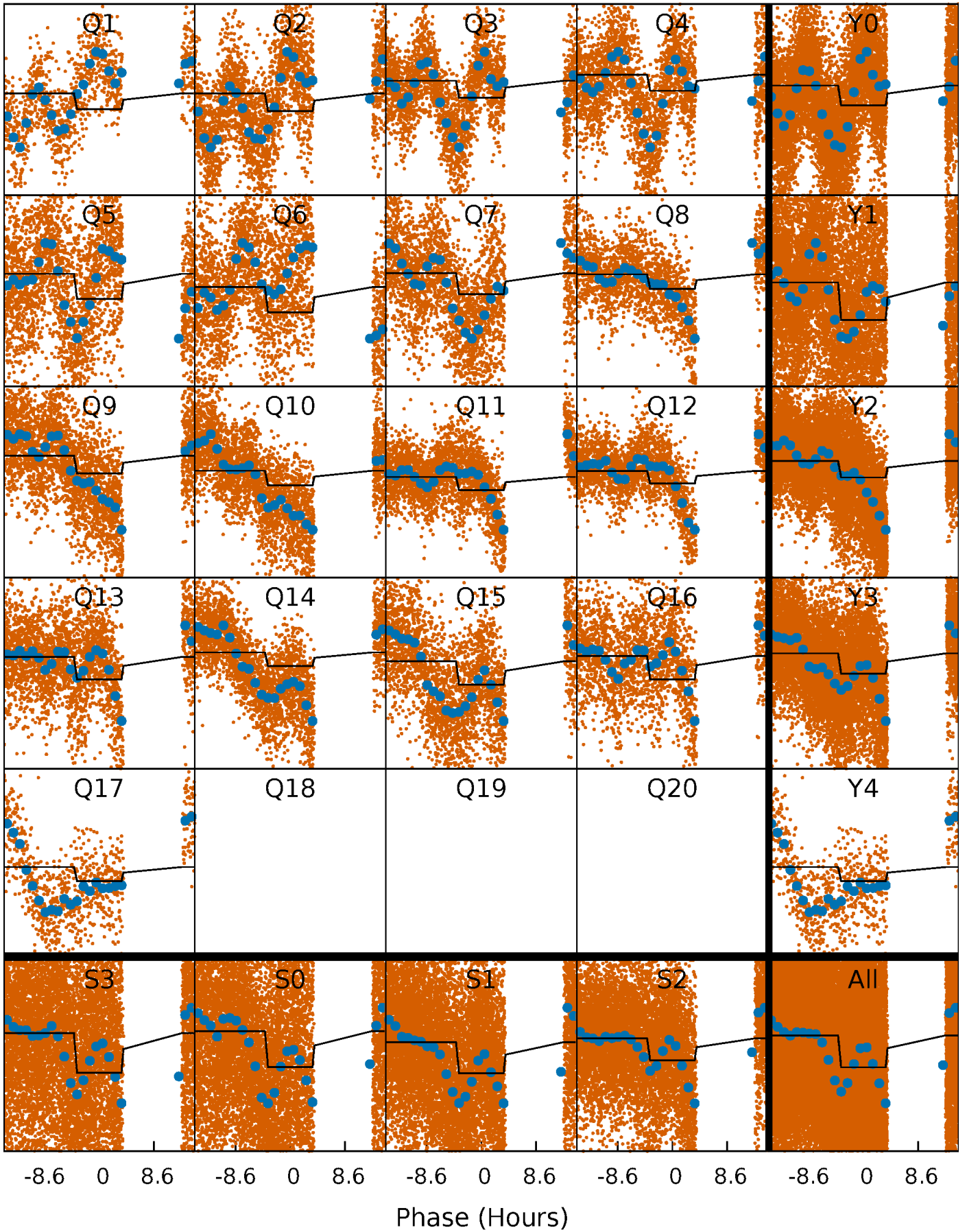
DV Quarter-Phased Transit Curves

TCE 005084289-02 P= 1.362005 Days $T_0=132.992340$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

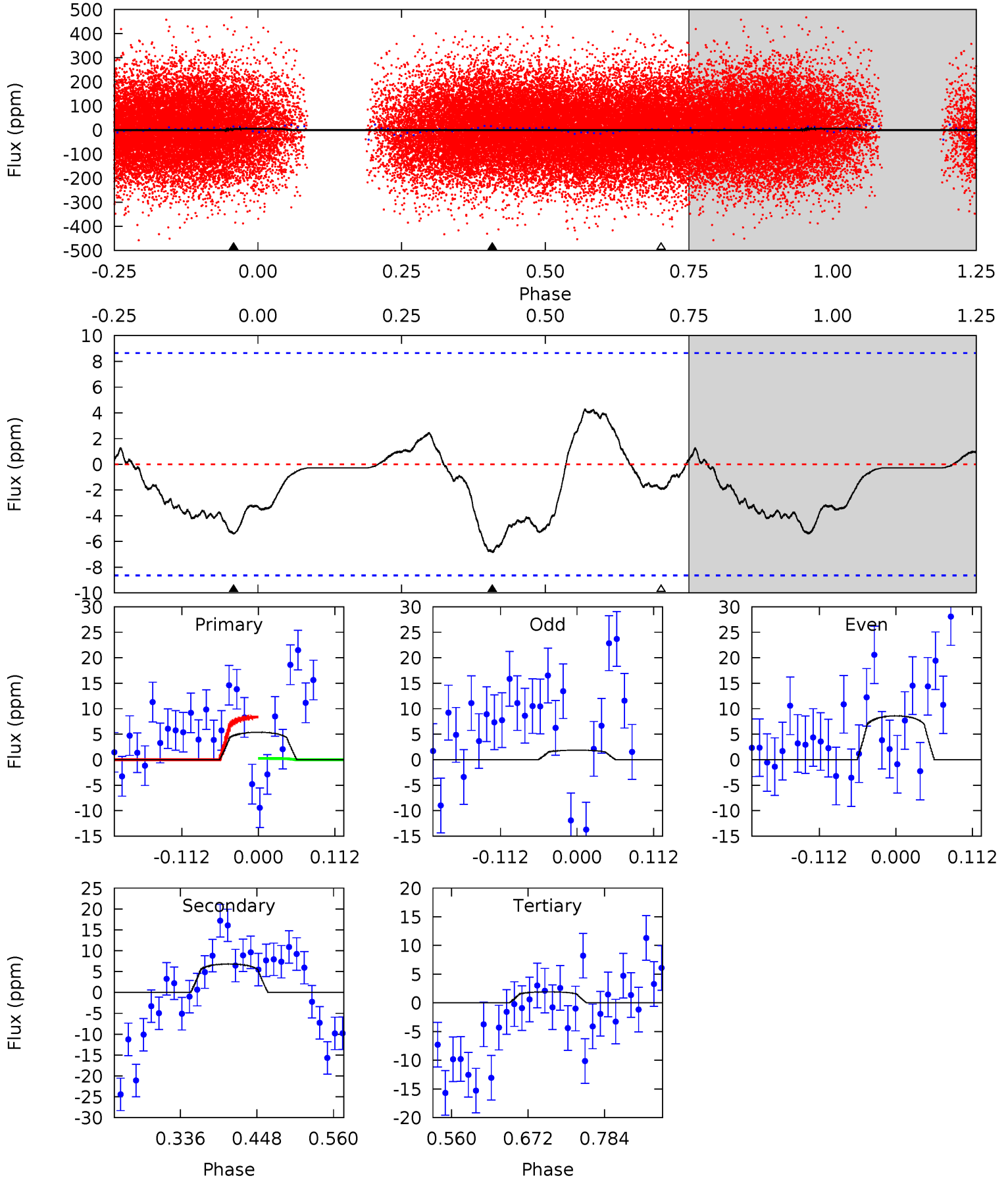
TCE 005084289-02 P= 1.361756 Days $T_0=132.962789$ (BKJD)



DV Model-Shift Uniqueness Test

005084289-02, P = 1.362005 Days, E = 130.268330 Days

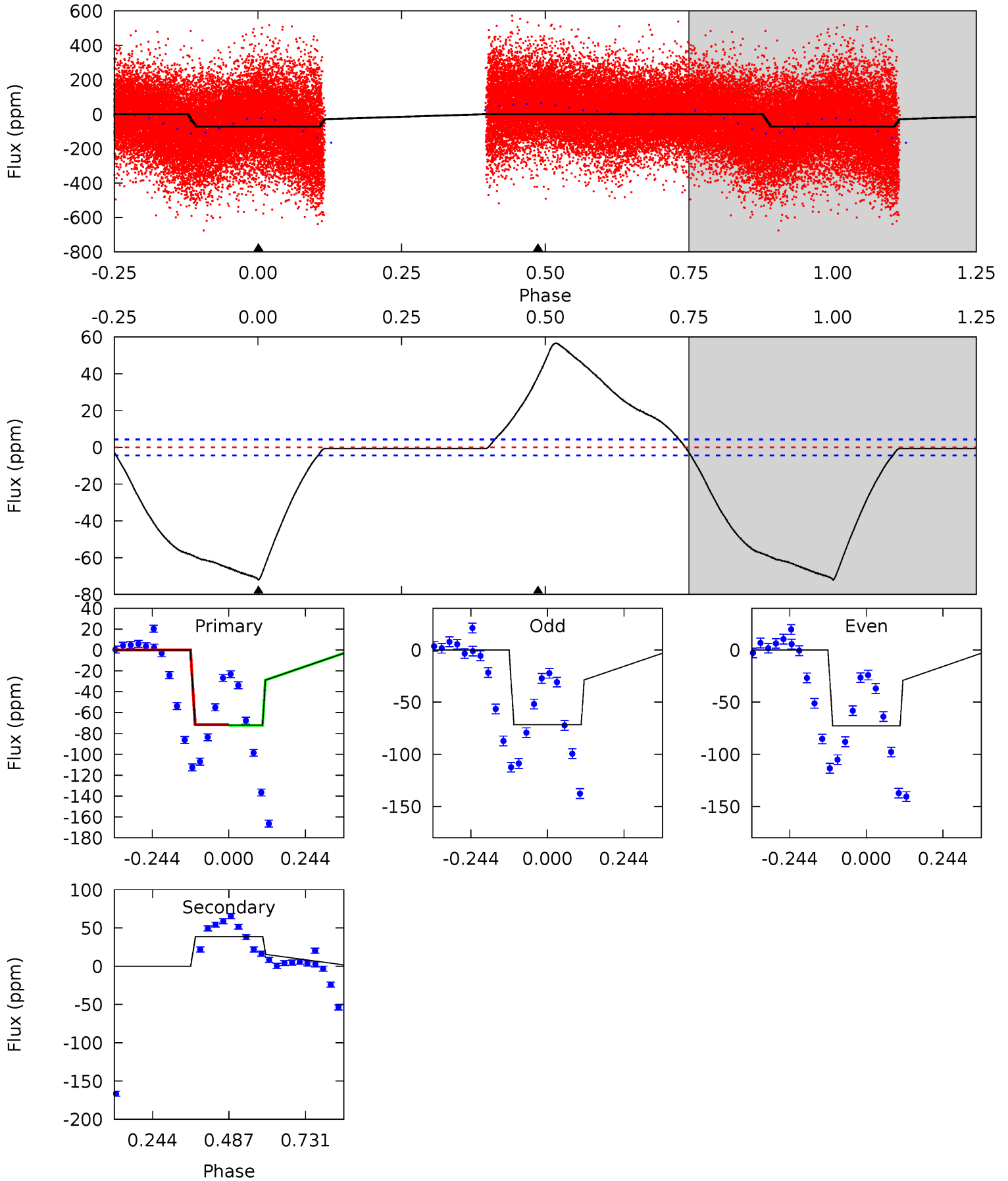
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.83	3.58	1.01	0	4.54	1.59	1.08	1.82	2.83	2.58	3.58	1.76	2.18	0.39	2.00



Alt Model-Shift Uniqueness Test

005084289-02, P = 1.361756 Days, E = 130.239277 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
72.2	-38.7	0	0	4.37	1.17	9.31	72.2	72.2	-38.7	-38.7	0.51	1.13	0.44	0.24



Stellar Parameters For KIC 005084289

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6796^{+190}_{-214}	$3.753^{+0.312}_{-0.078}$	$-0.460^{+0.300}_{-0.250}$	$2.595^{+0.417}_{-0.904}$	$1.391^{+0.231}_{-0.257}$	$0.112^{+0.229}_{-0.035}$
	+3%/-3%	+8%/-2%	+65%/-54%	+16%/-35%	+17%/-18%	+204%/-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 005084289-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-7 ± 2	$10.29^{+11.61}_{-7.19}$	3996^{+572}_{-446}	-3530^{+1148}_{-399}	$0.023^{+0.265}_{-0.018}$
Alt.	39 ± 1	$10.79^{+11.41}_{-7.64}$	3984^{+625}_{-469}	-4088^{+424}_{-1142}	$-0.136^{+0.110}_{-1.406}$

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 $A_{obs} \gg 1.0$

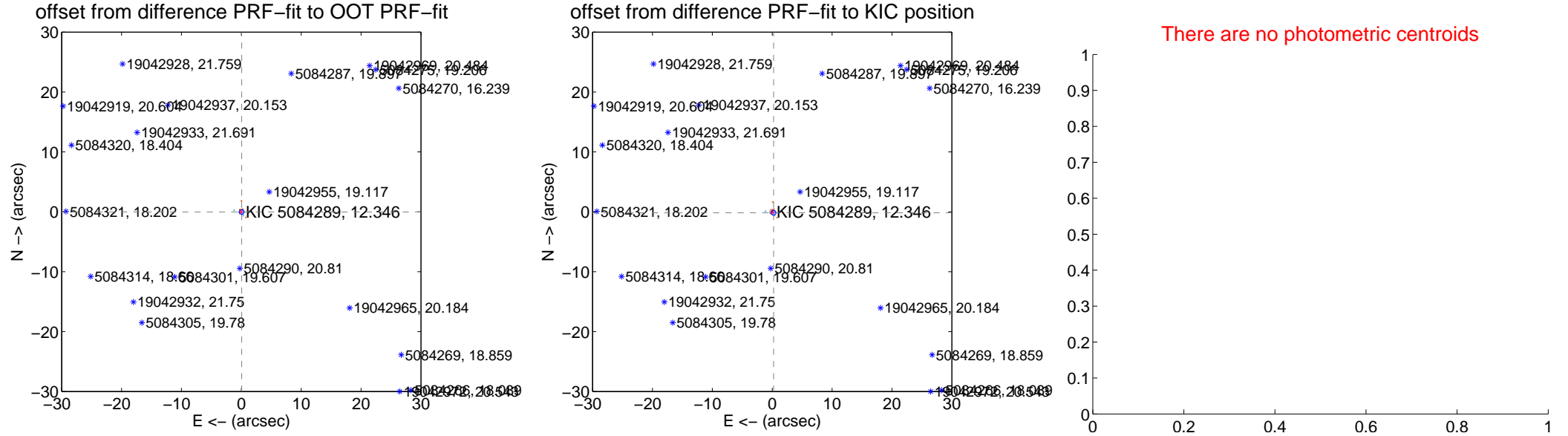
DV Centroid Data

Supplemental centroid analysis for 005084289-02. Kepler magnitude: 12.35. Transit SNR 0.00

There are 10 quarters with good PRF difference image offsets

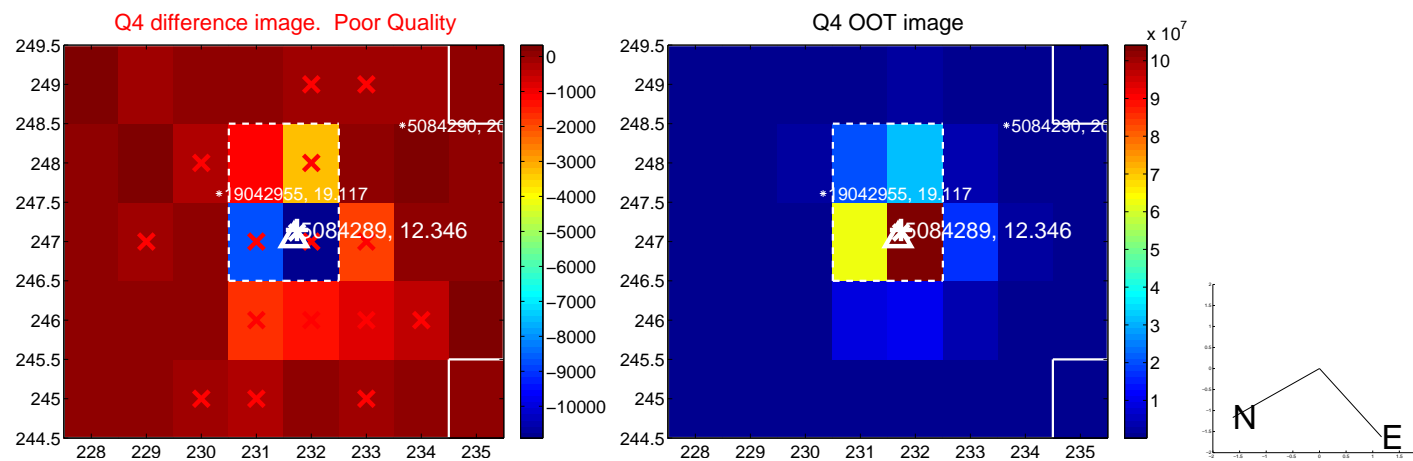
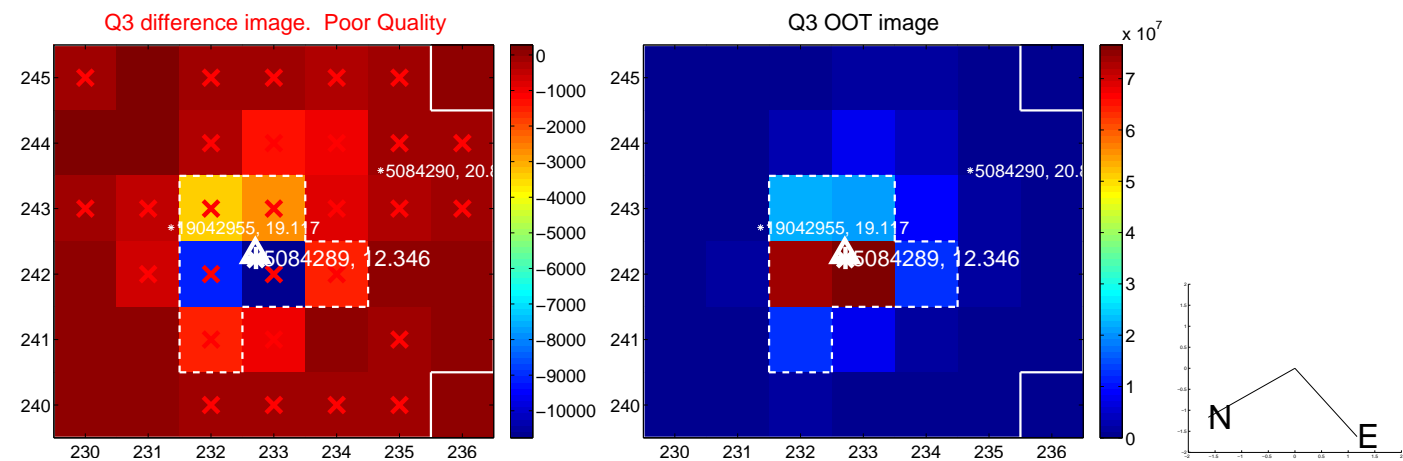
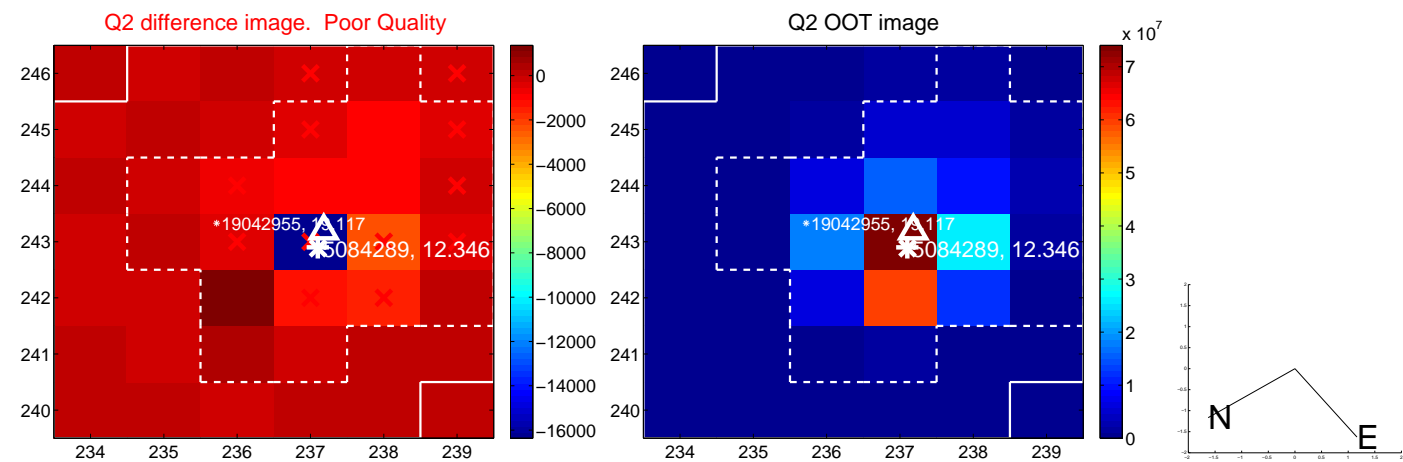
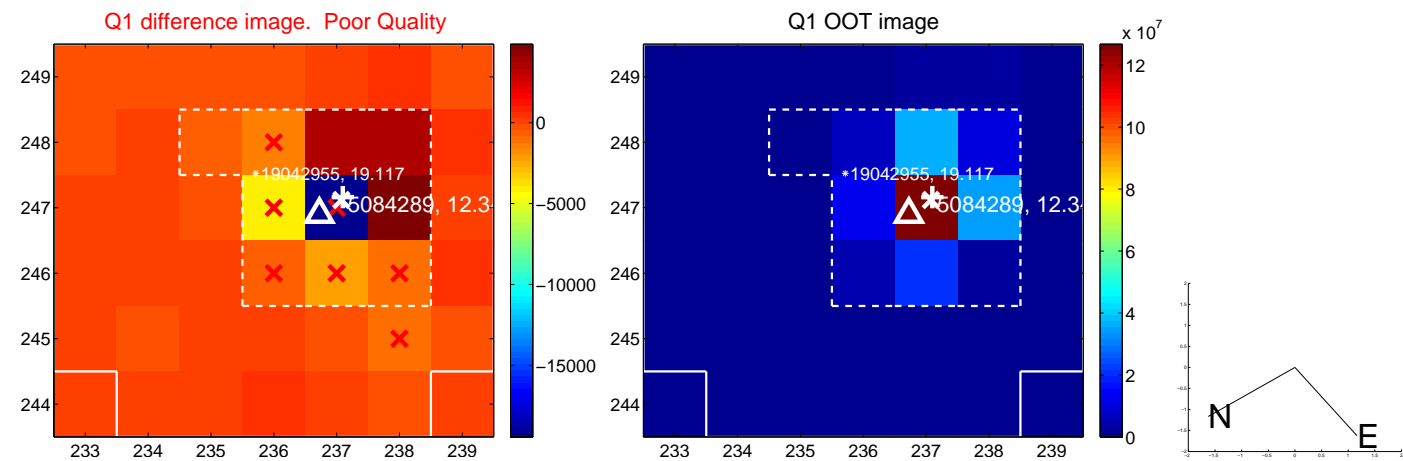
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.061 ± 0.131	0.46	-0.058 ± 0.120	-0.018 ± 0.153
PRF-fit source offset from KIC position	0.279 ± 0.132	2.12	-0.230 ± 0.118	-0.157 ± 0.134
photometric centroid source offset	—	—	—	—

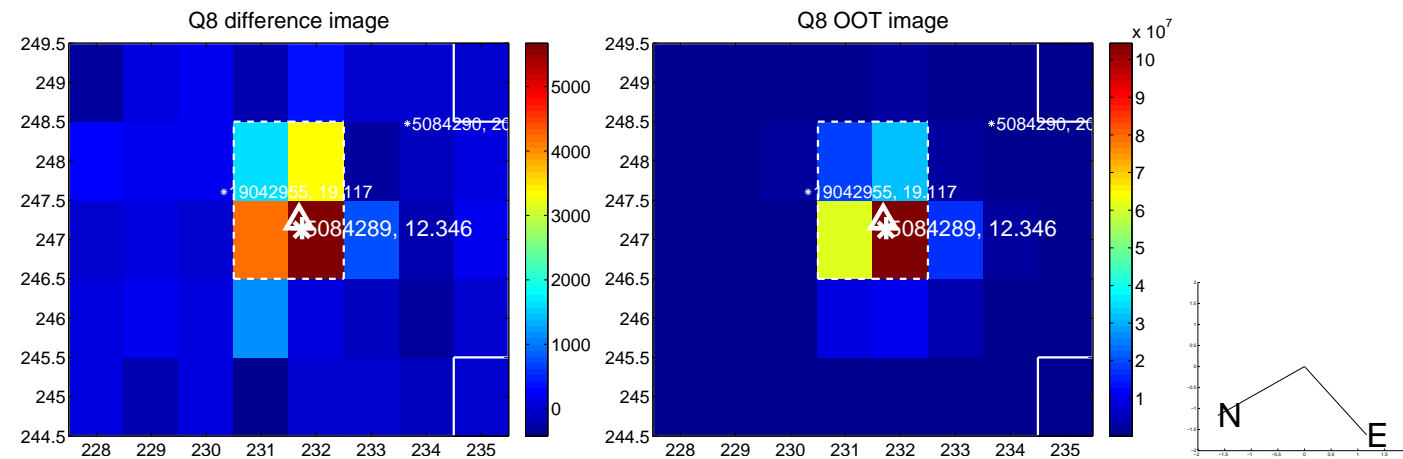
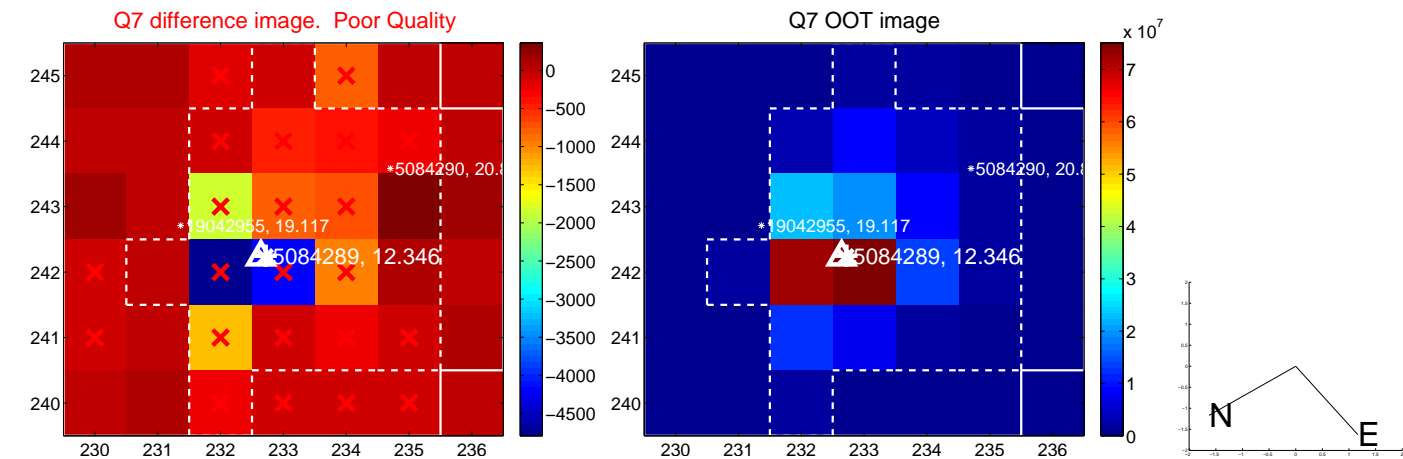
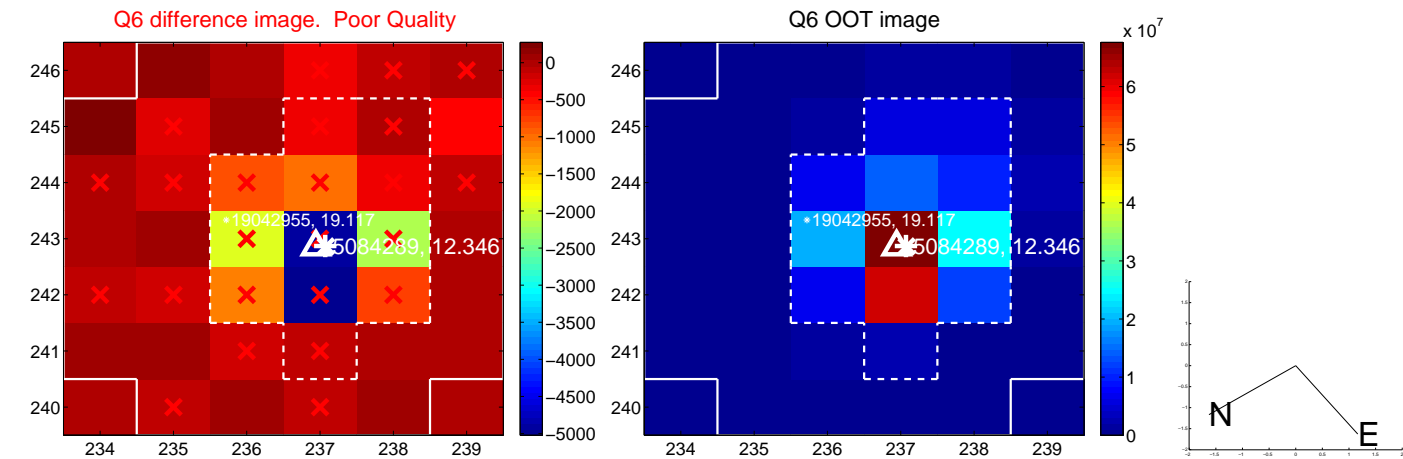
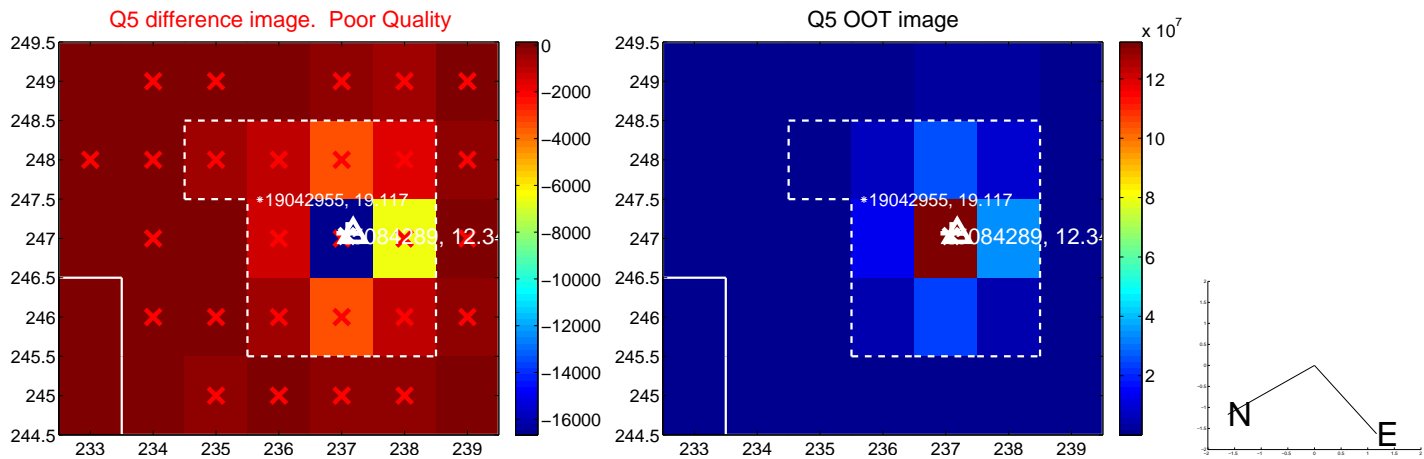


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

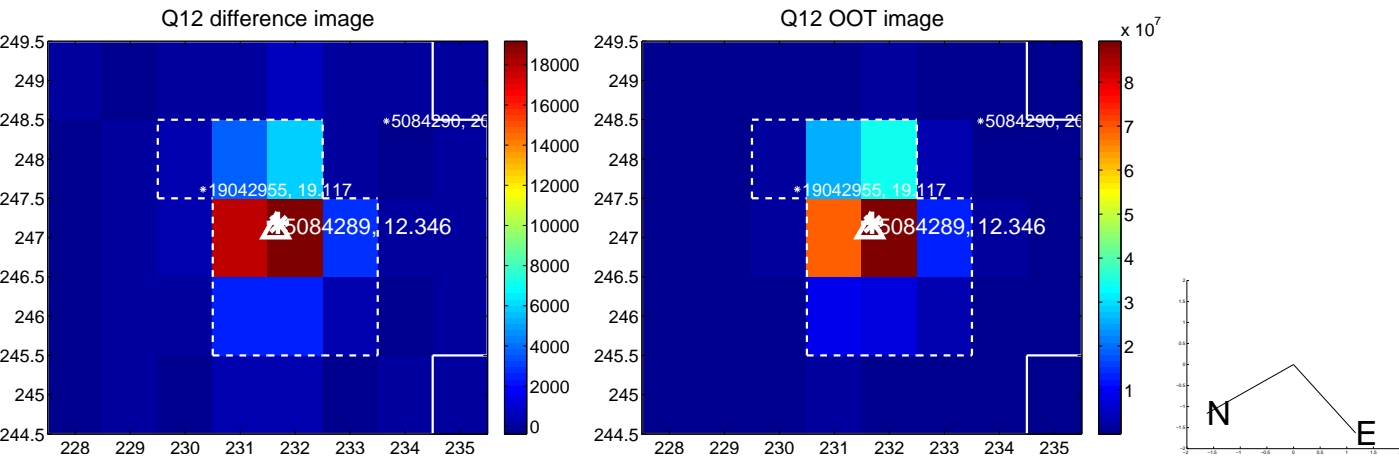
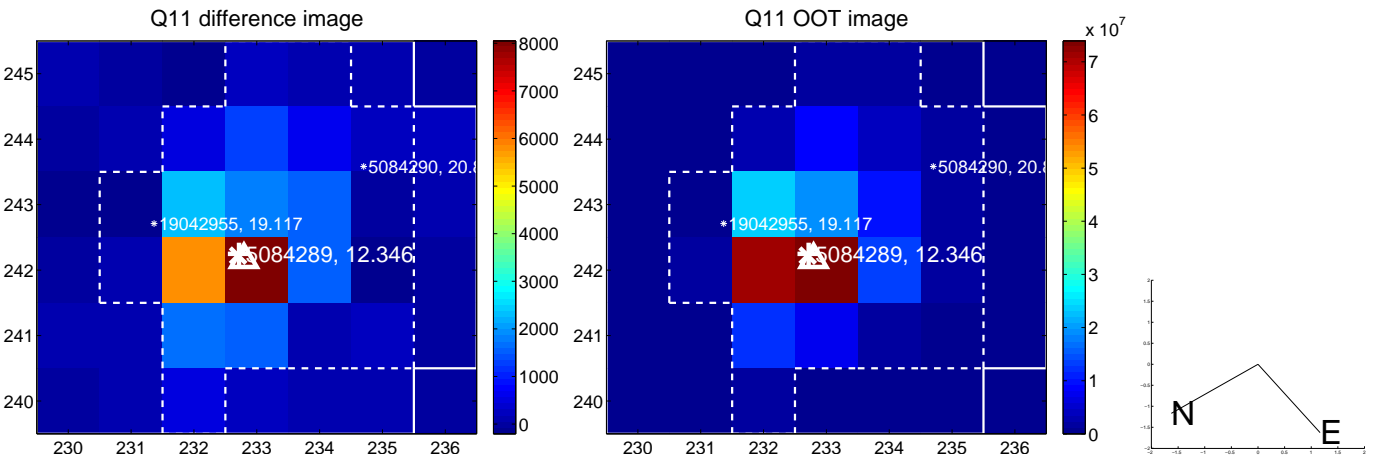
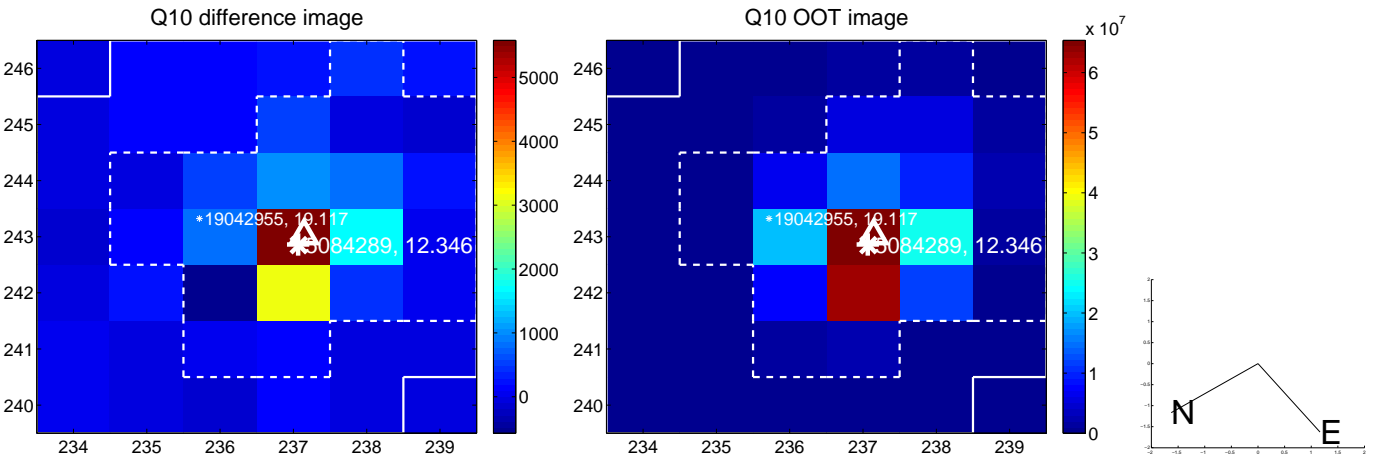
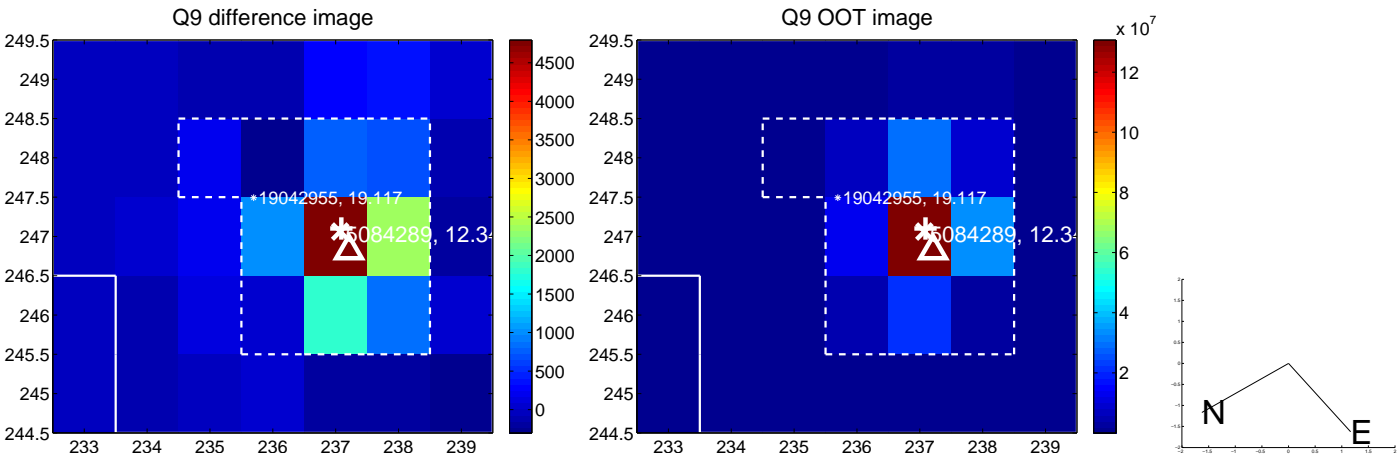
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



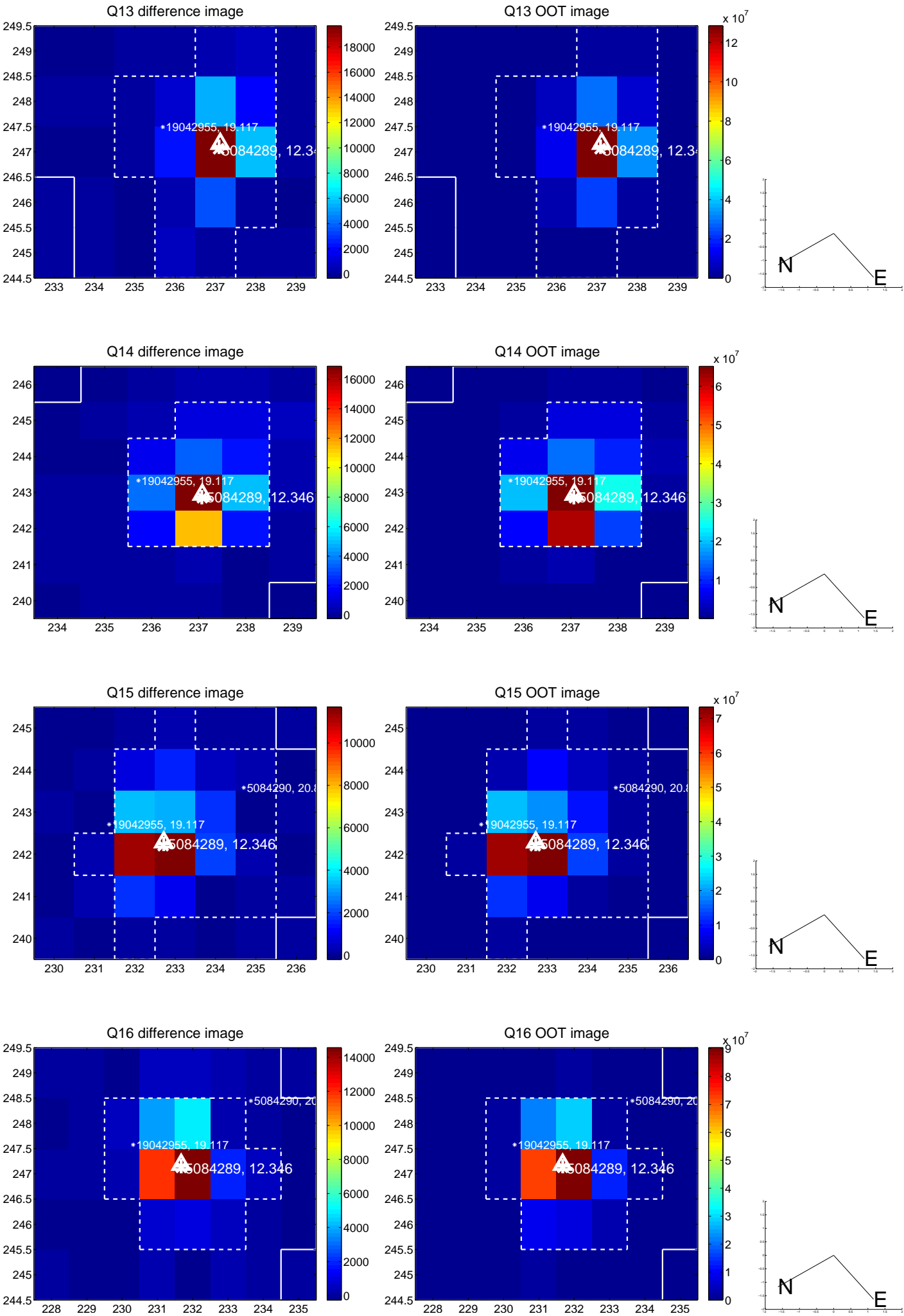
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



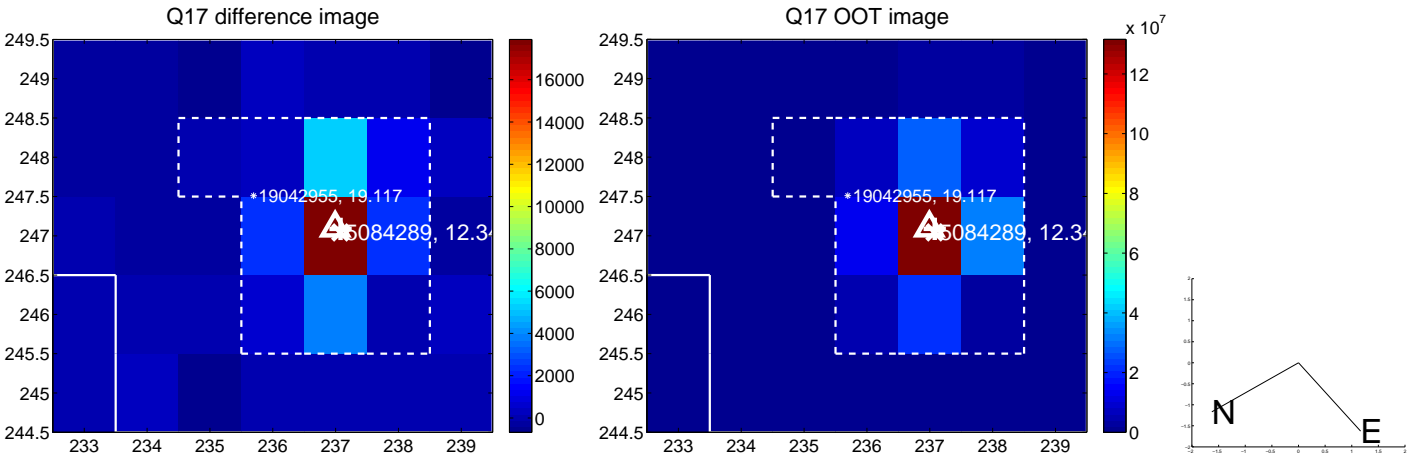
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

