

KIC 008056665

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})
008056665-01	OBS	0089.01	84.687687	150.573341	348.7	10.388	71.3	67.3	1.79	6688	3.72	33.03
008056665-02	OBS	0089.02	207.587549	289.863248	491.7	6.787	45.1	46.8	1.79	6688	4.27	9.99
008056665-03	OBS	No	0.960847	131.976215	8.2	2.613	9.0	8.8	1.79	6688	0.60	12955.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008056665-01	OBS	PC	0.88	0	0	0	0	NO_COMMENT
008056665-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
008056665-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

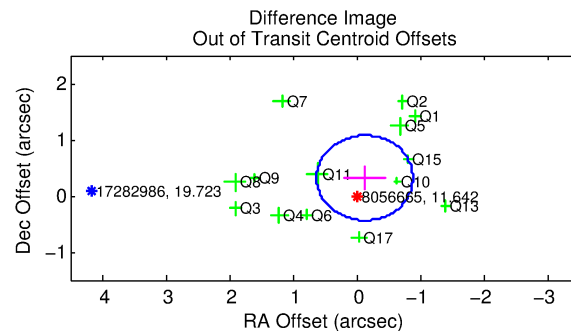
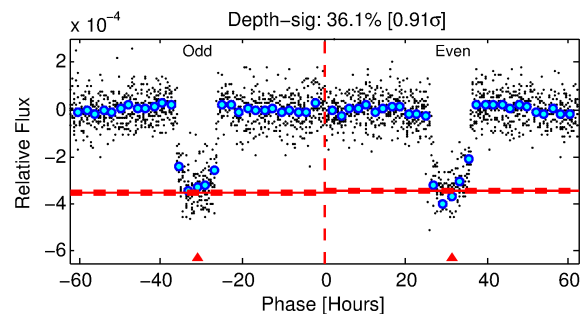
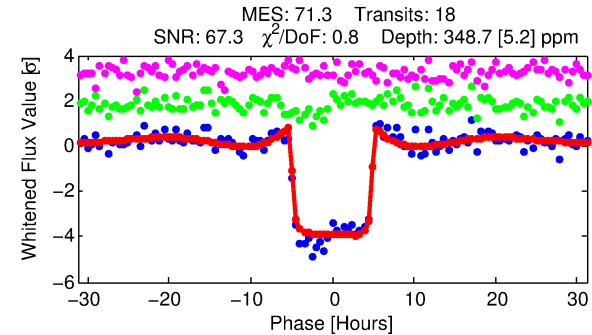
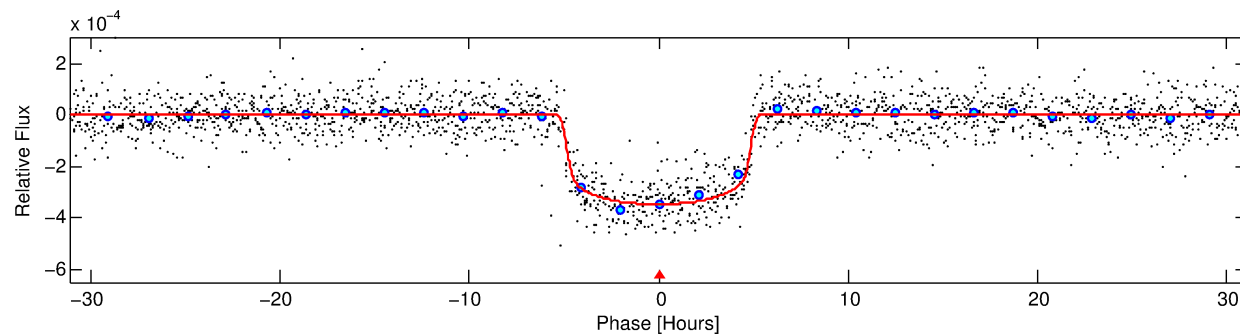
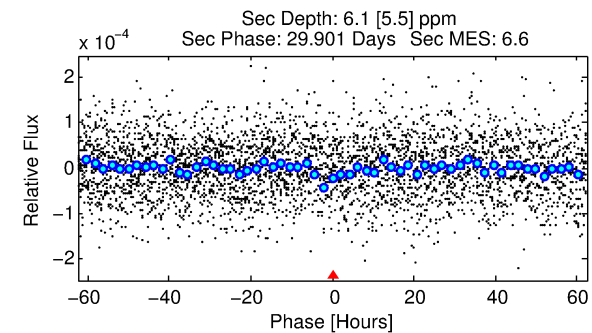
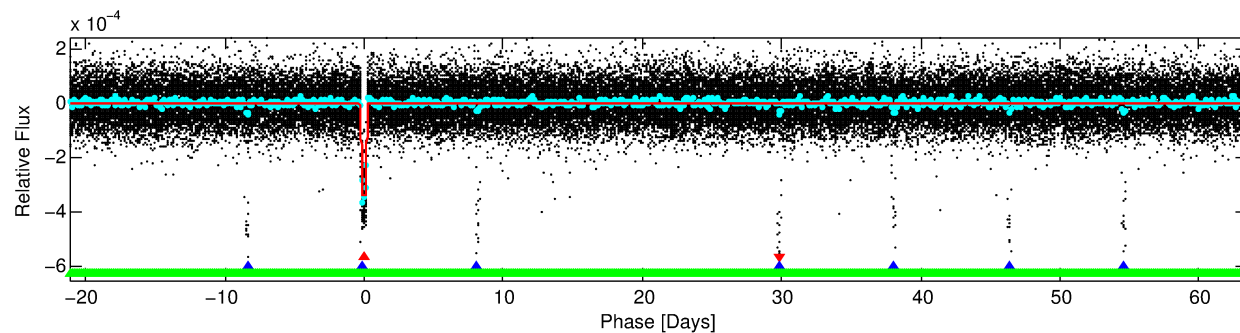
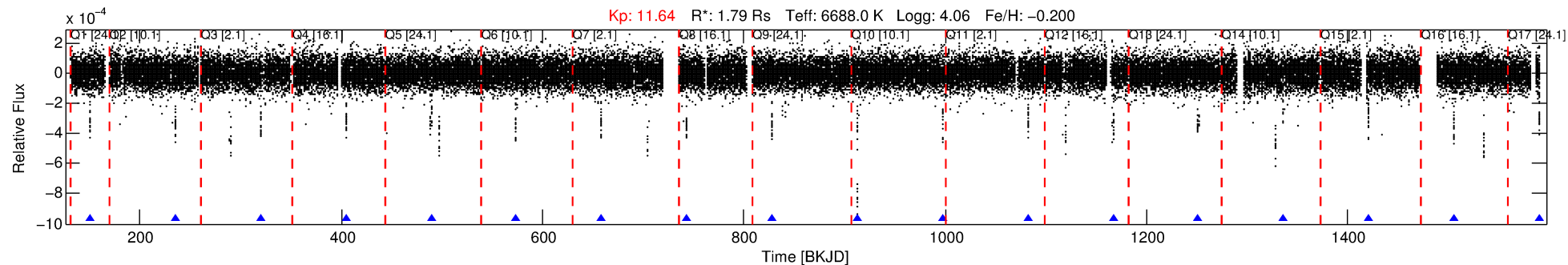
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008056665-01

No Significant Match Found

DV One-Page Summary

KIC: 8056665 Candidate: 1 of 3 Period: 84.688 d
KOI: K00089.01 Corr: 0.982



DV Fit Results:

Period = 84.68769 [0.00020] d
Epoch = 150.5733 [0.0020] BKJD
 $R_p/R^* = 0.0191$ [0.0005]
 $a/R^* = 37.45$ [5.37]
 $b = 0.82$ [0.06]
 $S_{\text{eff}} = 33.03$ [10.60]
 $T_{\text{eq}} = 611$ [49] K
 $R_p = 3.72$ [0.87] R_e
 $a = 0.4170$ [0.0852] AU
 $A_g = 41.89$ [40.47] [1.01σ]
 $T_{\text{eff}} = 2404$ [553] K [3.23σ]

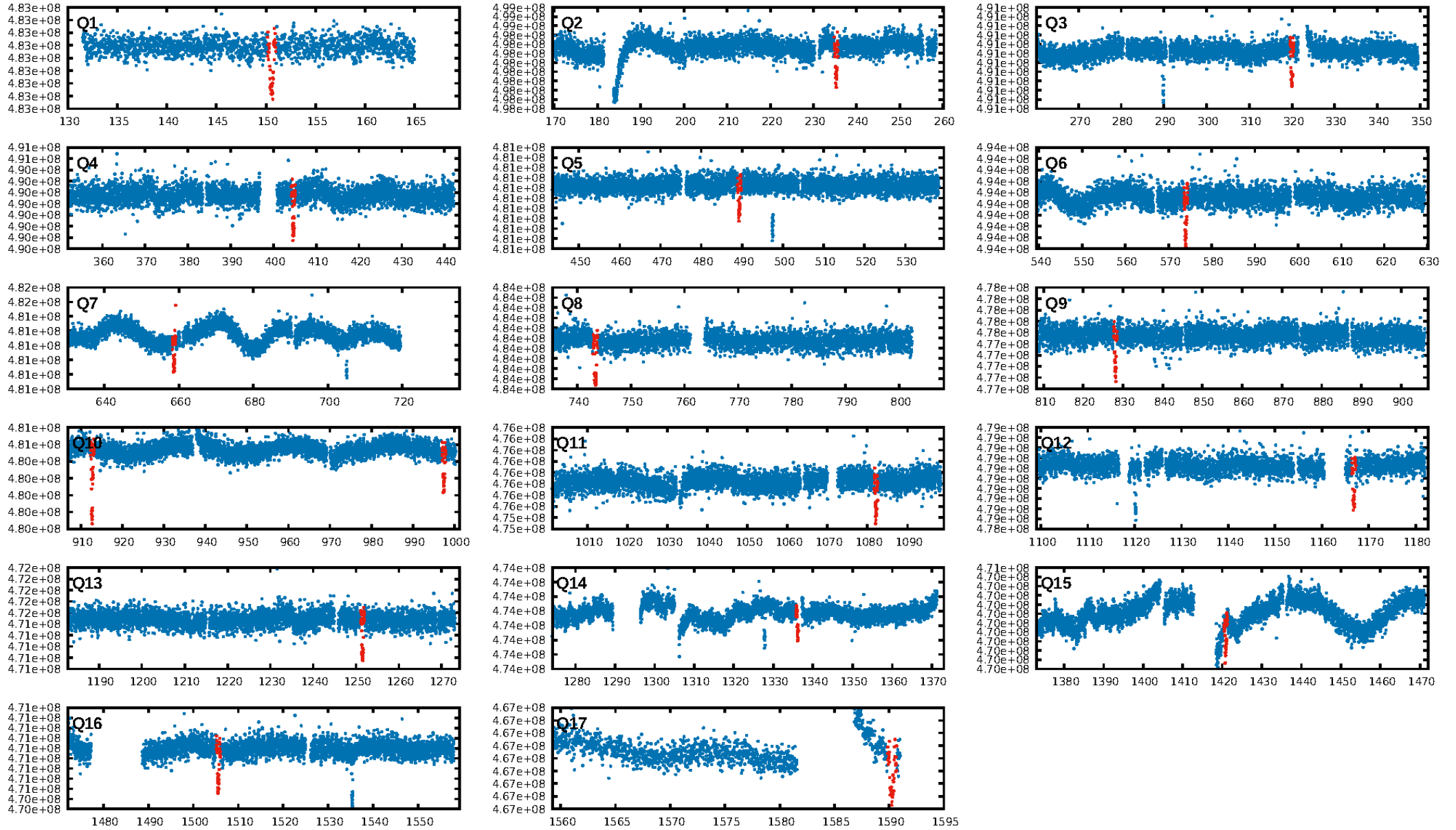
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [187.60σ]
LongPeriod-sig: 100.0% [237.71σ]
ModelChiSquare2-sig: 4.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: 12.13
Centroid-sig: 0.8%
Centroid-so: 0.961 arcsec [3.86σ]
OotOffset-rm: 0.342 arcsec [1.36σ]
KicOffset-rm: 0.486 arcsec [1.68σ]
OotOffset-st: 3/4/2/5 [14]
KicOffset-st: 3/4/2/5 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 0.00 [0/14]

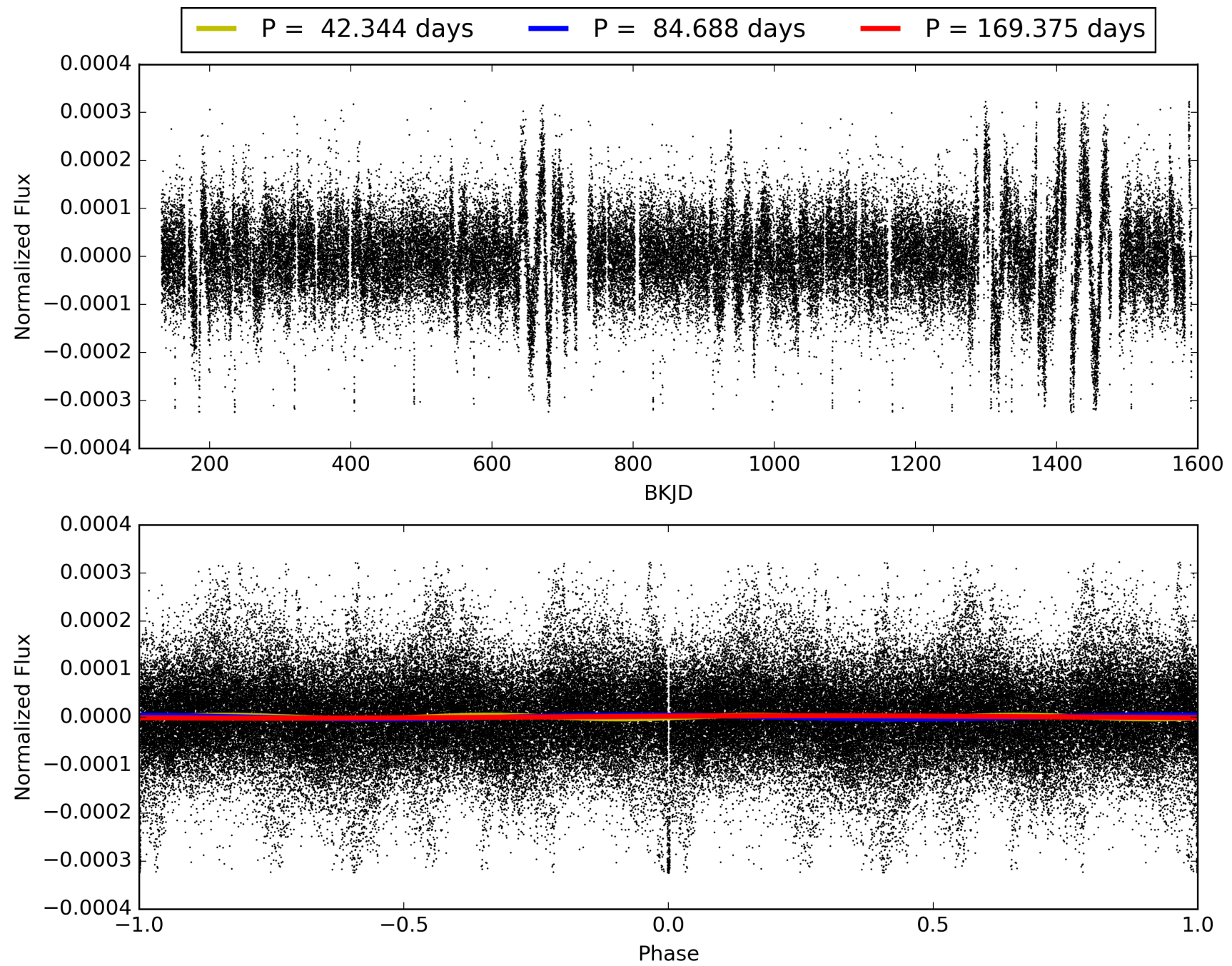
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:18:36 Z

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

TCE 008056665-01, PDC Light Curves

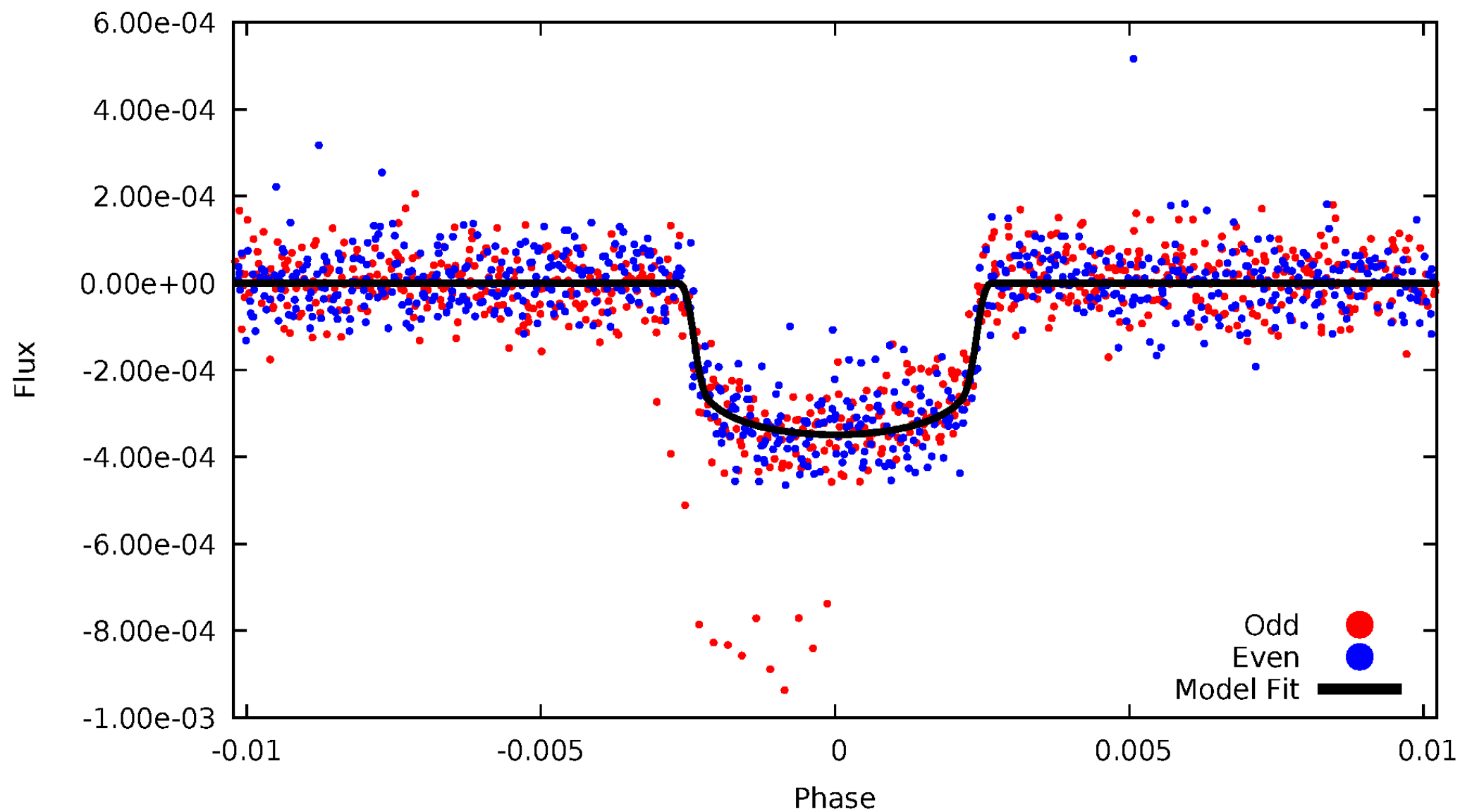


TCE 008056665-01



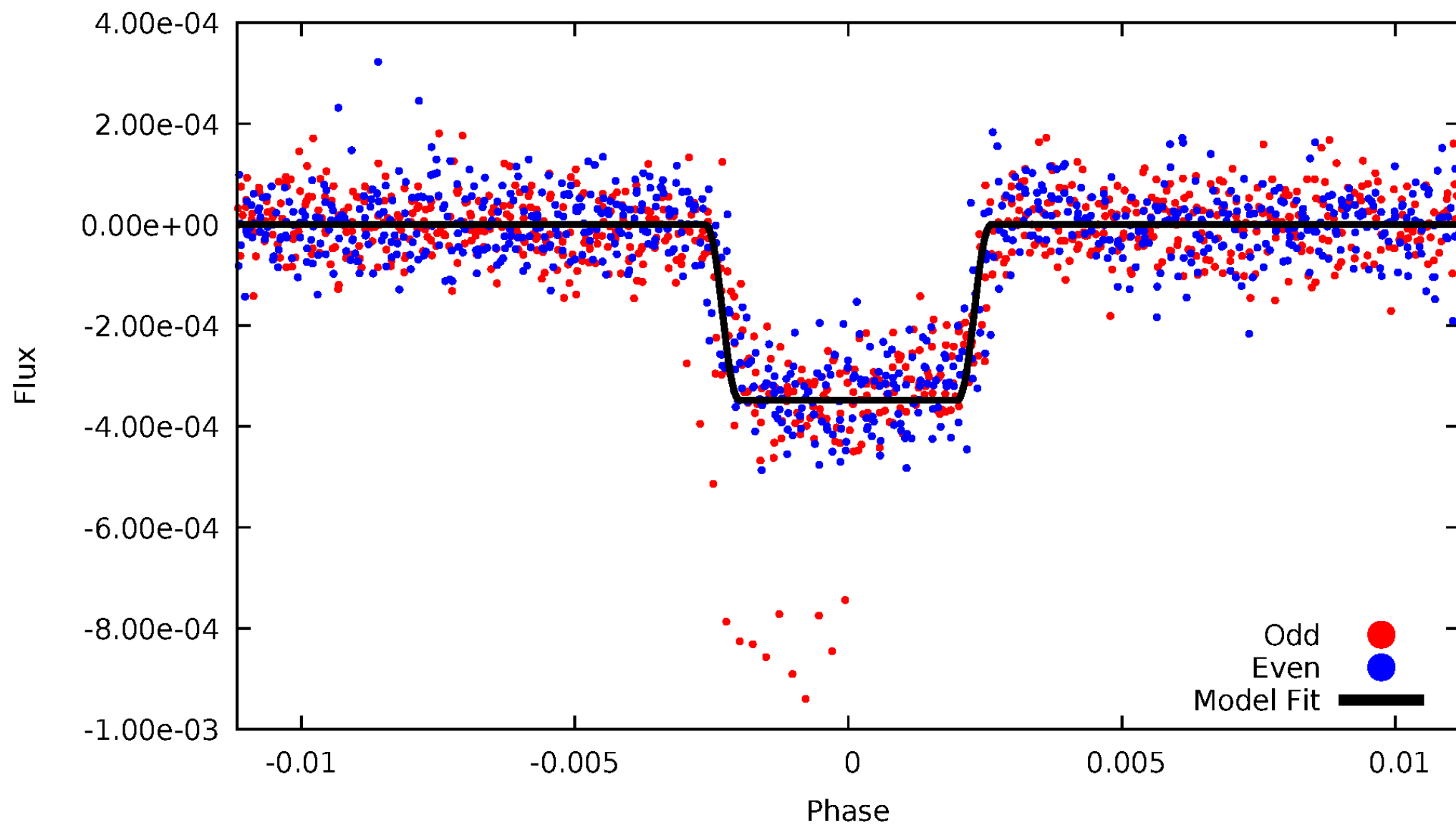
DV Odd/Even

TCE 008056665-01



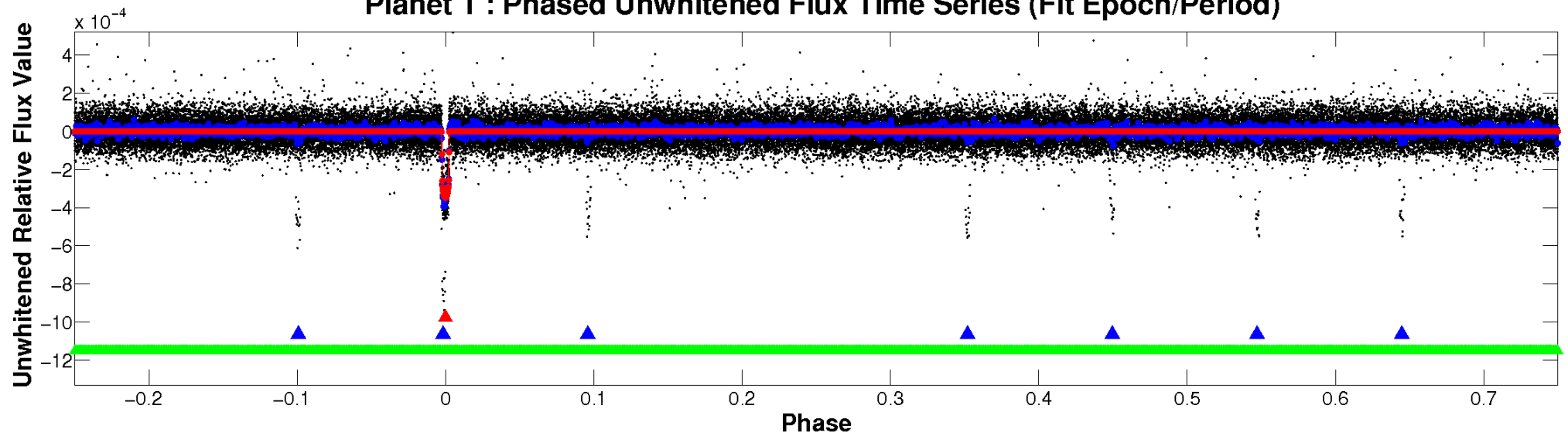
ALT Odd/Even

TCE 008056665-01

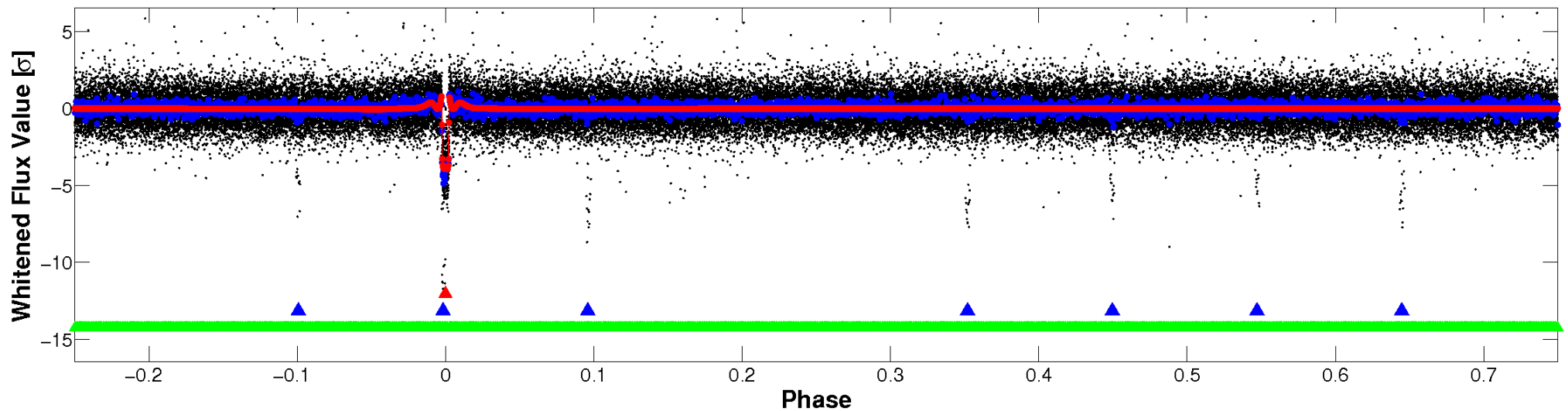


Non-Whitened Vs. Whitened Light Curve

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

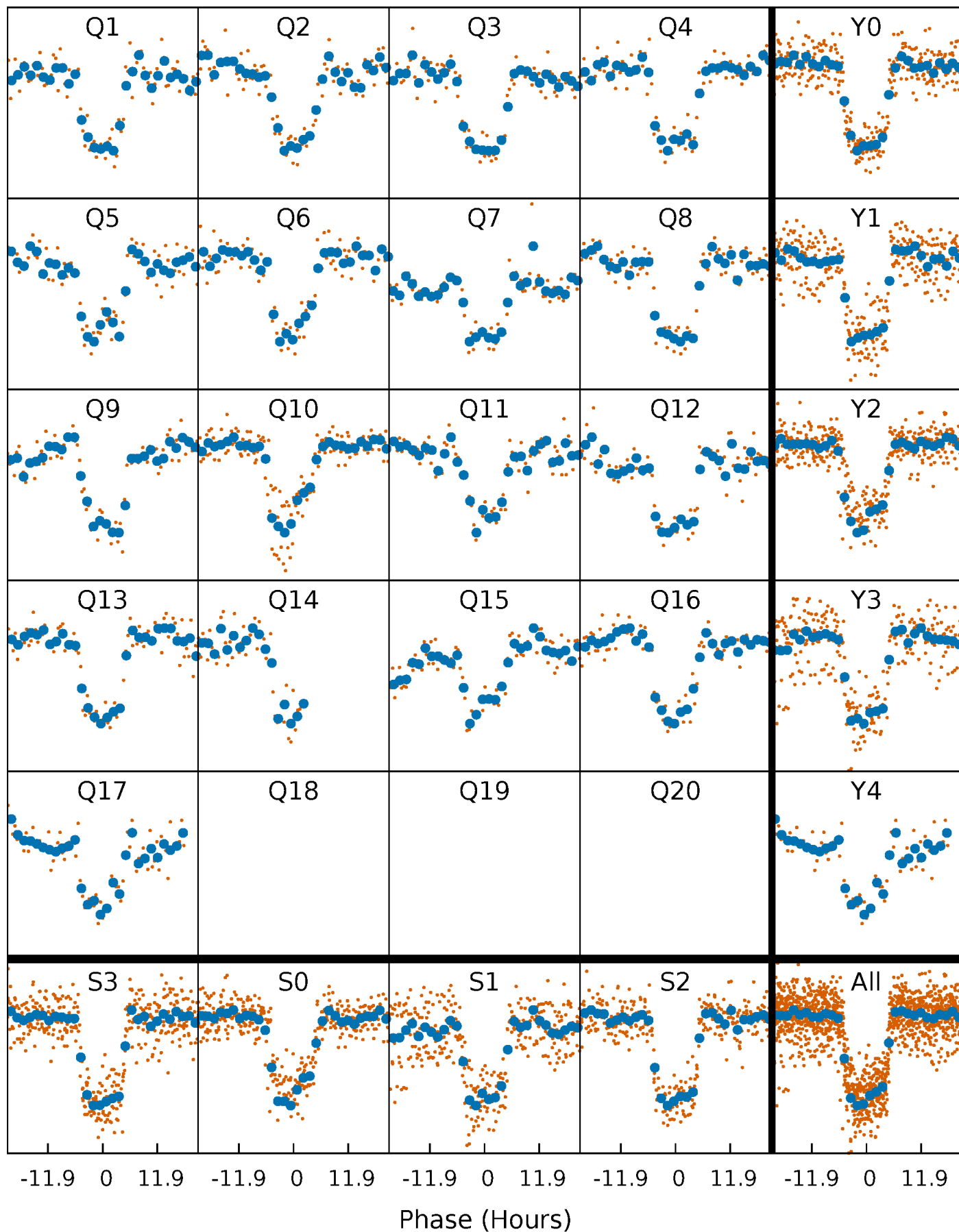


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



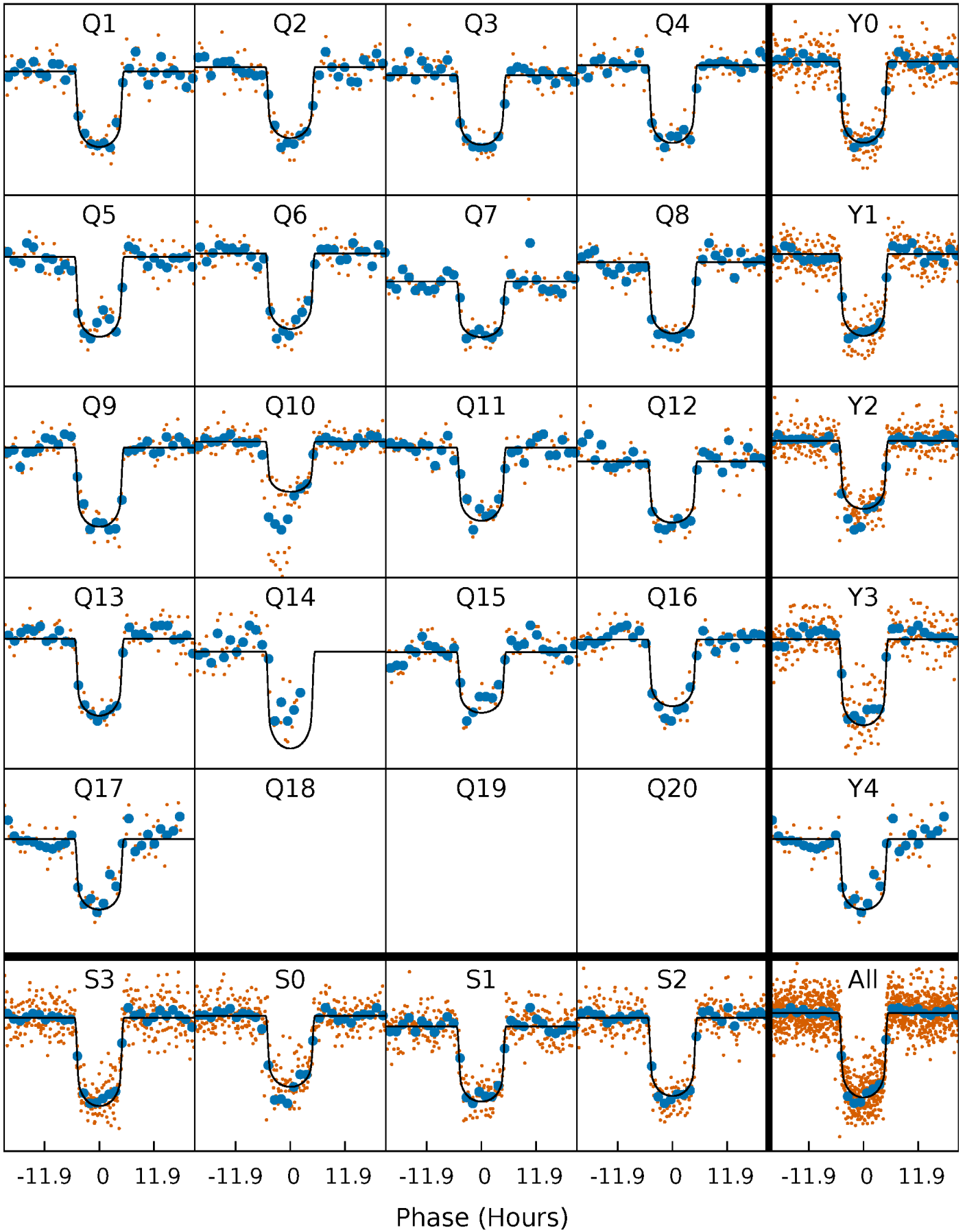
PDC Quarter-Phased Transit Curves

TCE 008056665-01 P= 84.687687 Days $T_0=150.573341$ (BKJD)



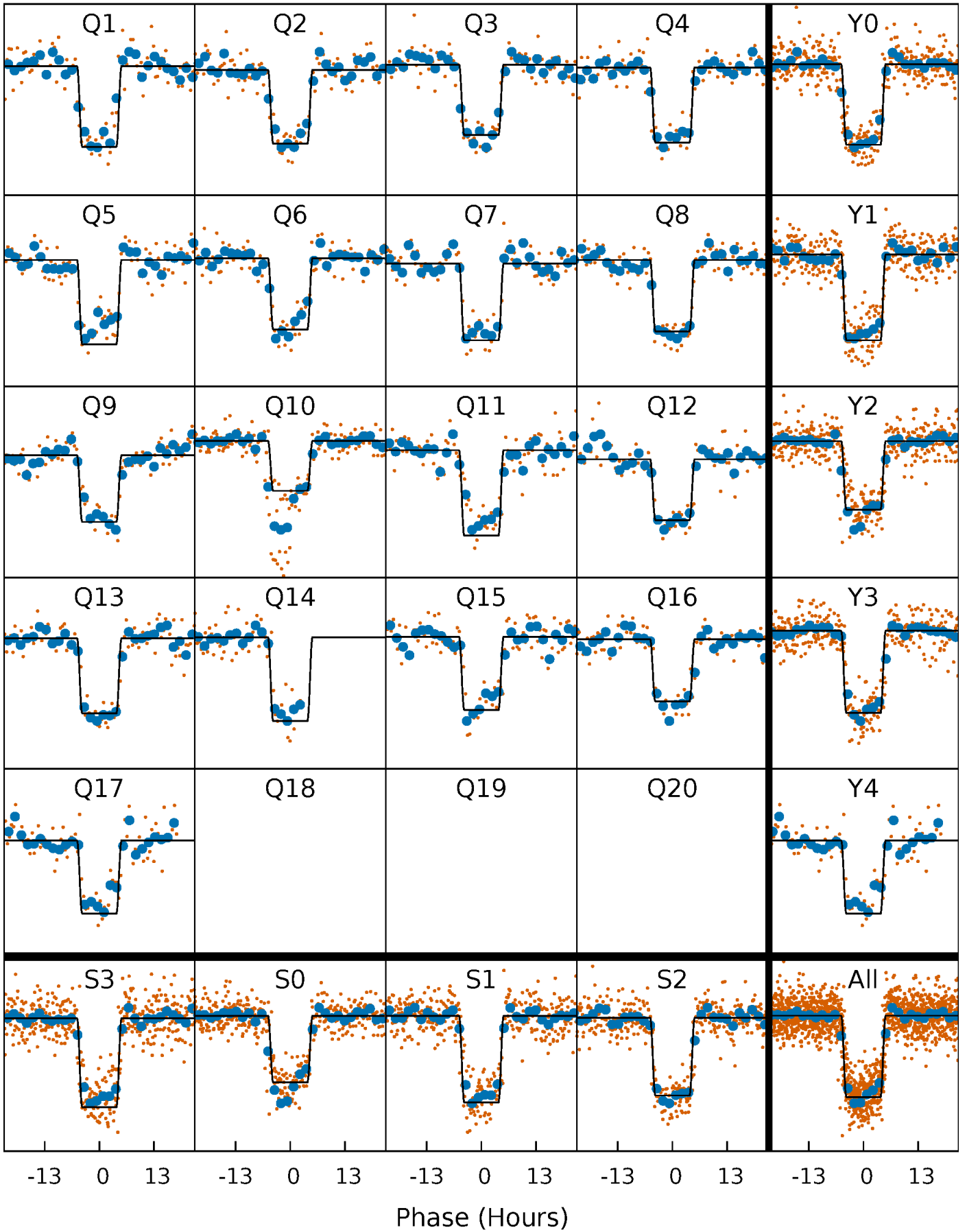
DV Quarter-Phased Transit Curves

TCE 008056665-01 P= 84.687687 Days $T_0=150.573341$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

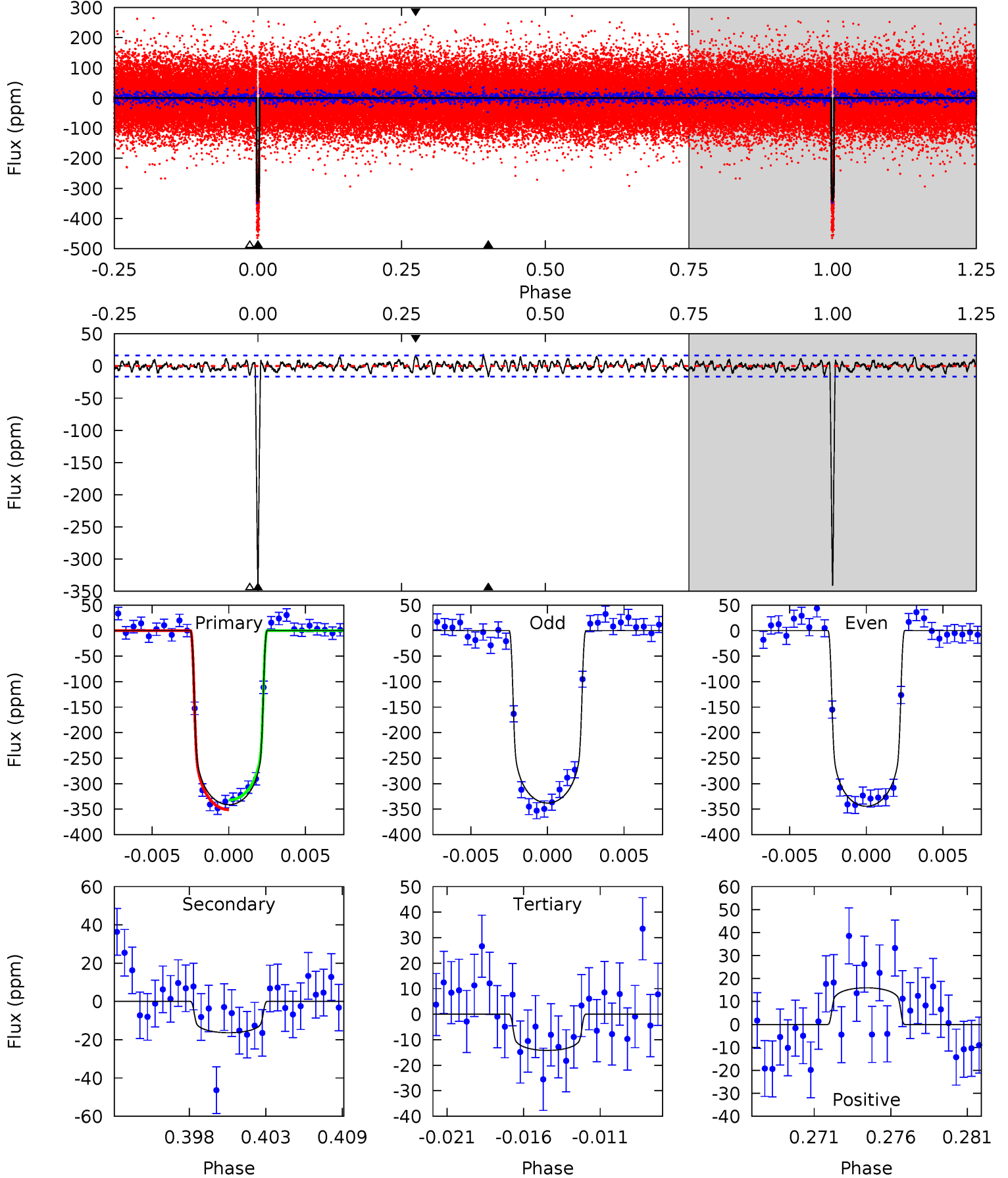
TCE 008056665-01 P= 84.684929 Days $T_0=150.591562$ (BKJD)



DV Model-Shift Uniqueness Test

008056665-01, $P = 84.687687$ Days, $E = 65.885654$ Days

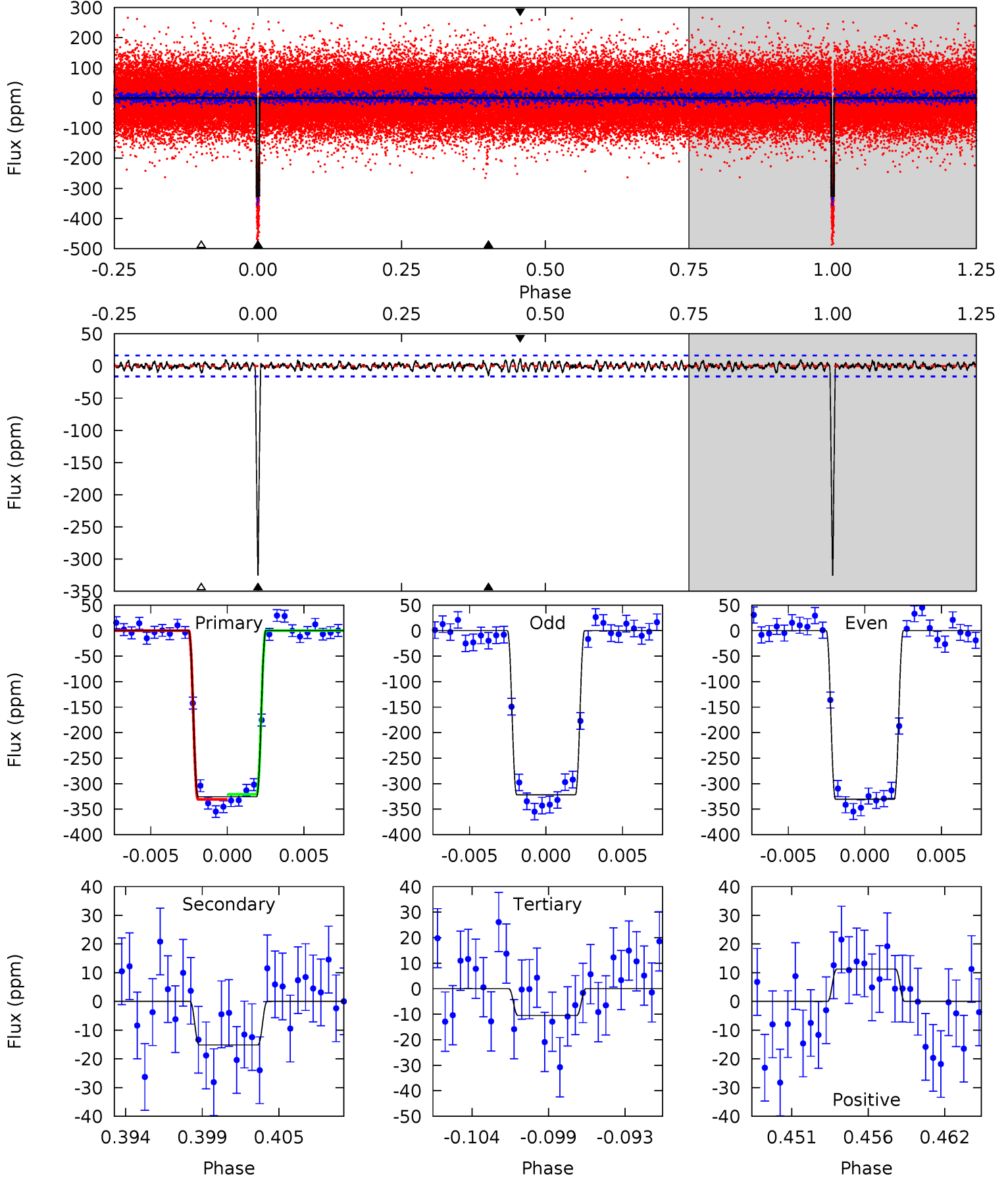
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
107.1	5.13	4.45	5.01	5.15	2.79	1.56	102.7	102.1	0.67	0.12	0.99	1.02	0.05	2.95



Alt Model-Shift Uniqueness Test

008056665-01, P = 84.684929 Days, E = 65.906633 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
102.7	4.77	3.31	3.56	5.15	2.80	1.14	99.4	99.1	1.46	1.22	1.42	1.05	0.03	1.52



Stellar Parameters For KIC 008056665

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6688^{+120}_{-147}	$4.062^{+0.174}_{-0.116}$	$-0.200^{+0.150}_{-0.150}$	$1.790^{+0.311}_{-0.415}$	$1.353^{+0.096}_{-0.178}$	$0.332^{+0.294}_{-0.115}$
	+2%/-2%	+4%/-3%	+75%/-75%	+17%/-23%	+7%/-13%	+89%/-34%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 008056665-01 / KOI 0089.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-16 ± 3	$3.70^{+0.41}_{-0.44}$	850^{+49}_{-48}	3538^{+121}_{-122}	114^{+36}_{-30}
Alt.	-15 ± 3	$3.62^{+0.38}_{-0.45}$	852^{+41}_{-50}	3520^{+126}_{-139}	108^{+39}_{-27}

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 $A_{obs} \gg 1.0$

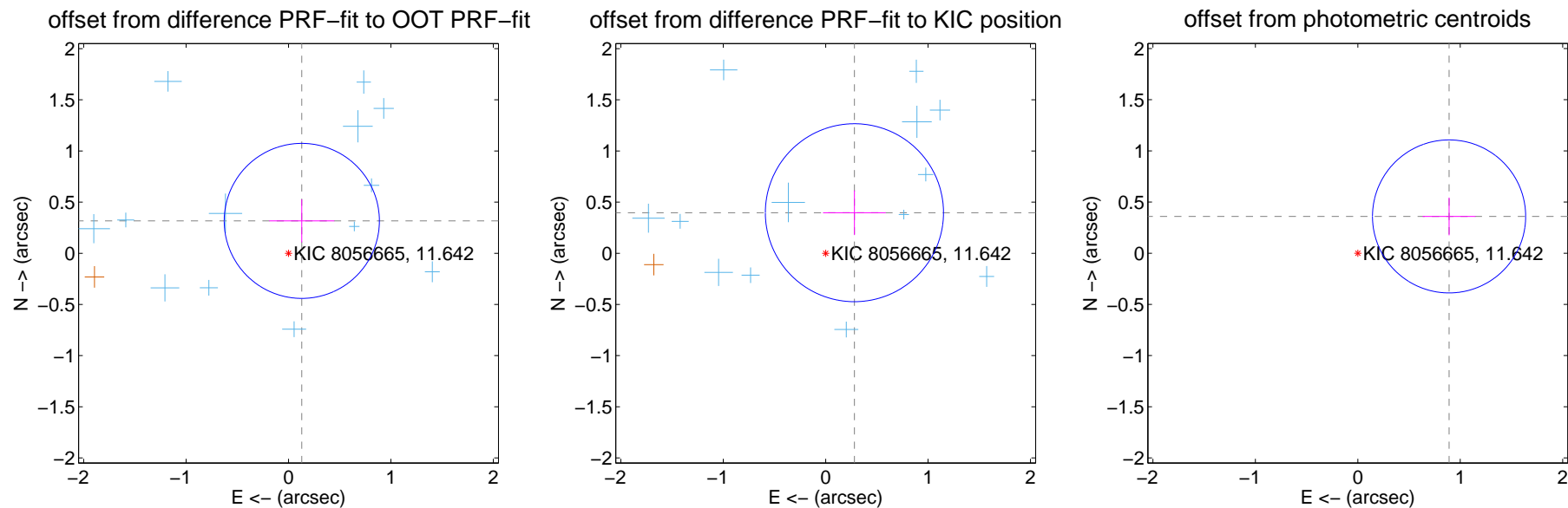
DV Centroid Data

Supplemental centroid analysis for 008056665-01. **Kepler magnitude: 11.64.** Transit SNR 67.32

There are 13 quarters with good PRF difference image offsets

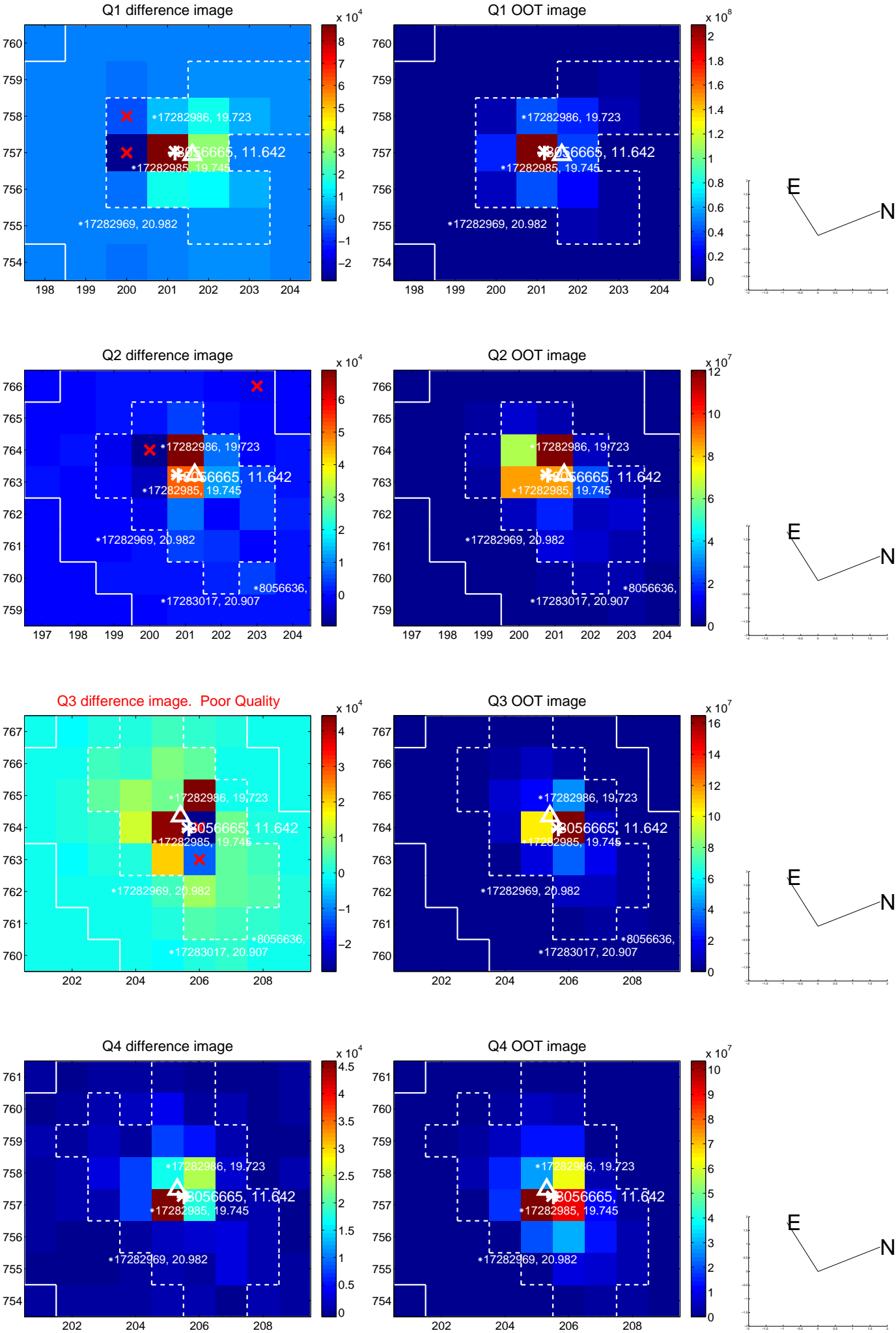
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.342 ± 0.253	1.36	-0.130 ± 0.318	0.317 ± 0.210
PRF-fit source offset from KIC position	0.486 ± 0.290	1.68	-0.281 ± 0.306	0.397 ± 0.218
photometric centroid source offset	0.96 ± 0.25	3.86	-0.89 ± 0.26	0.36 ± 0.18

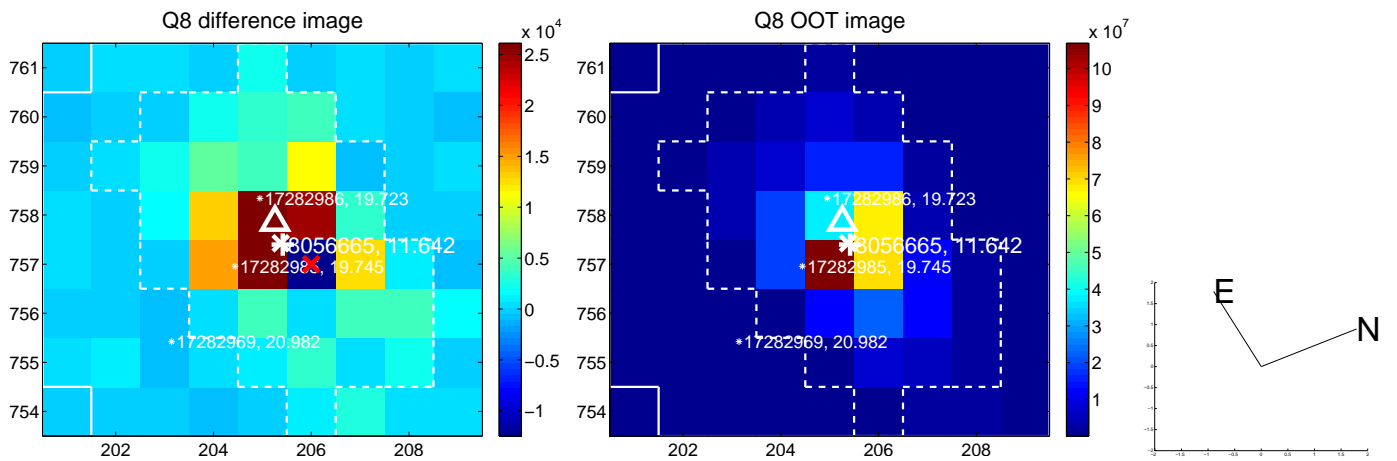
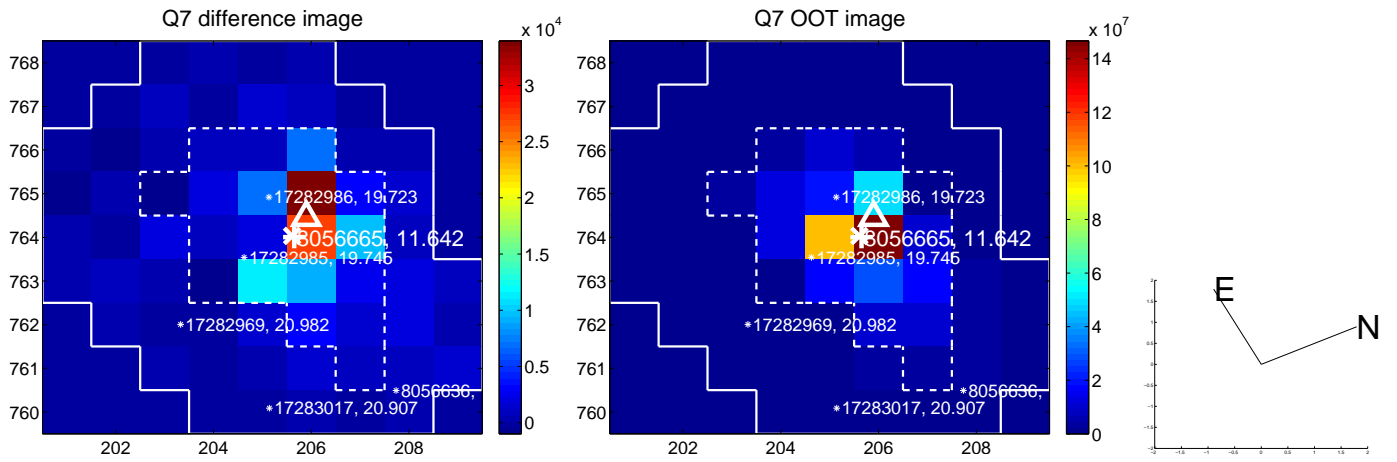
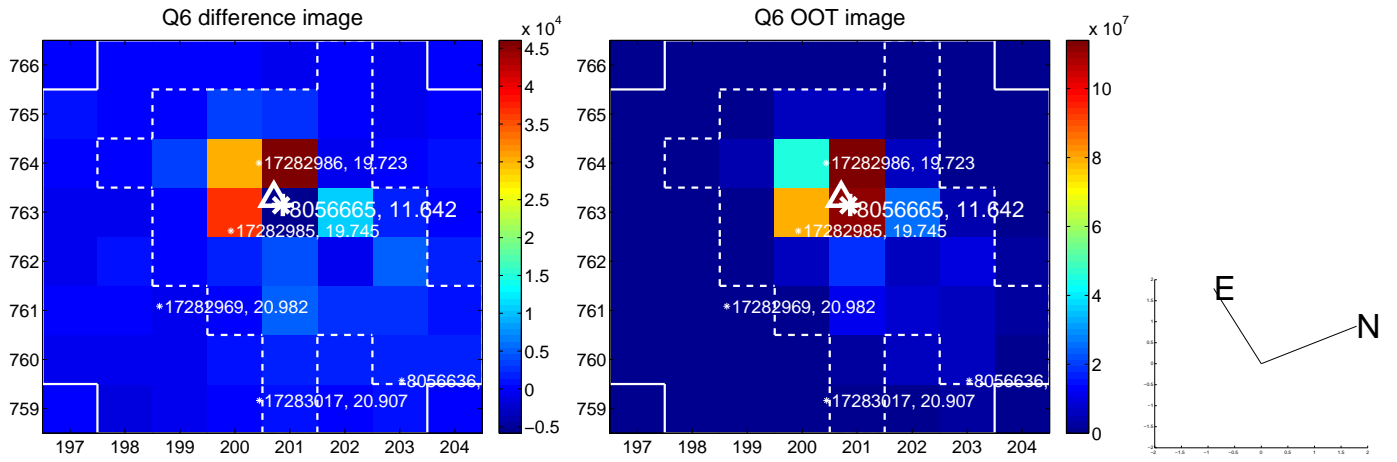
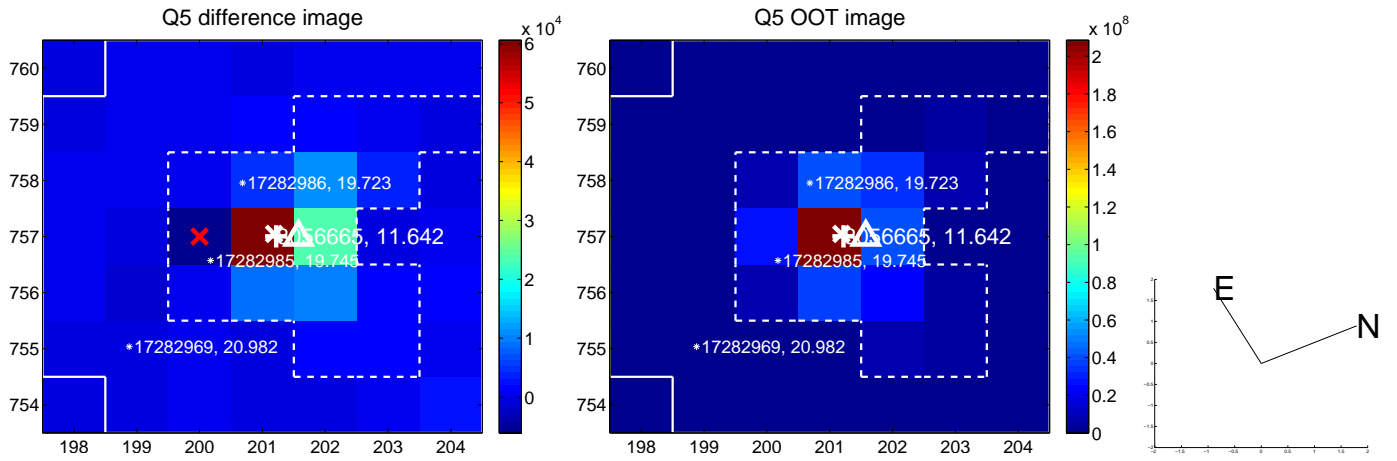


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

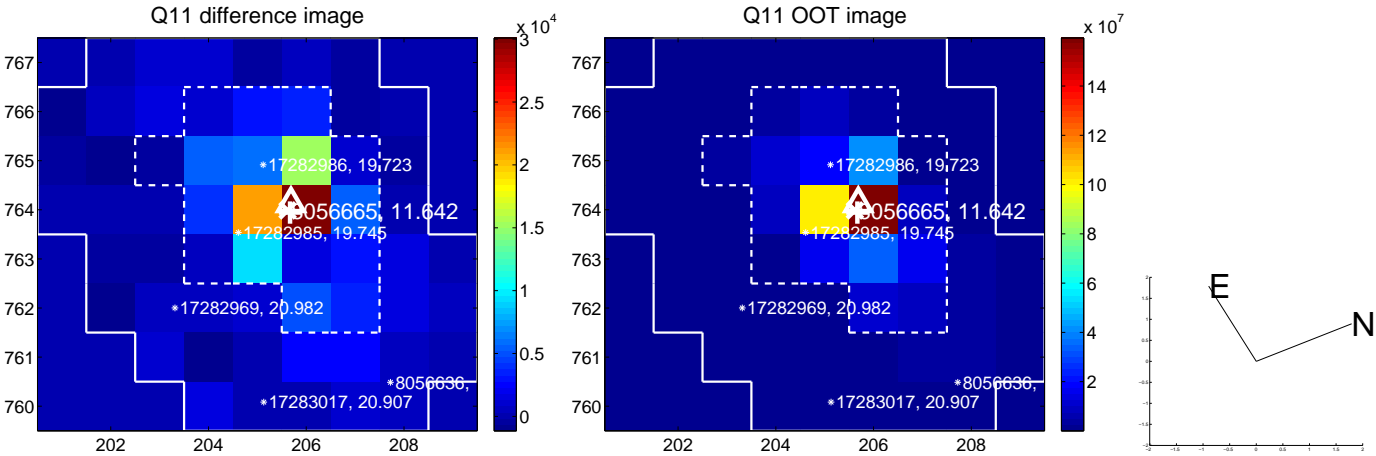
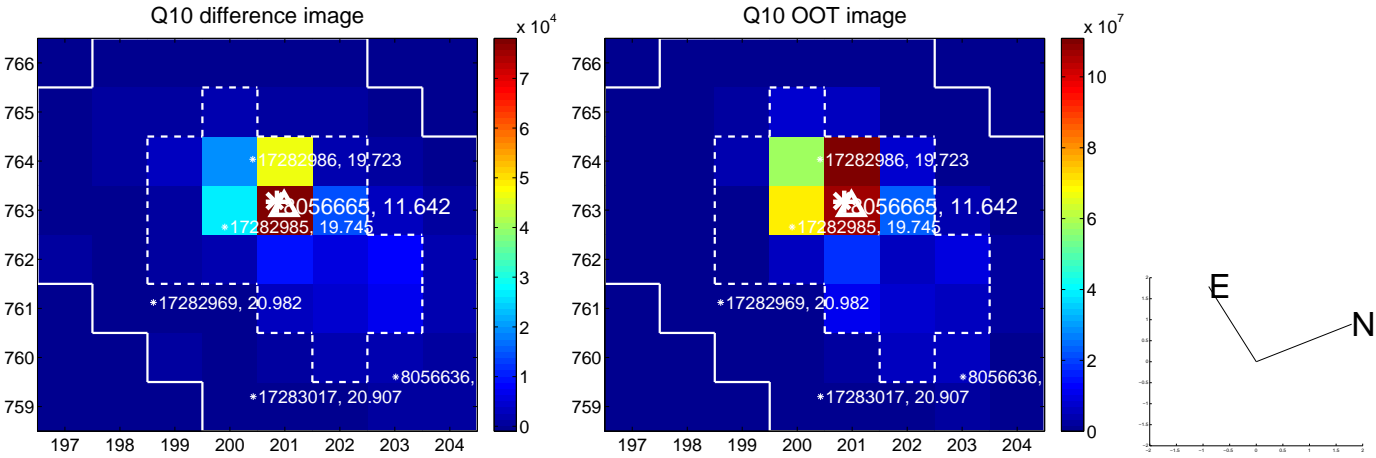
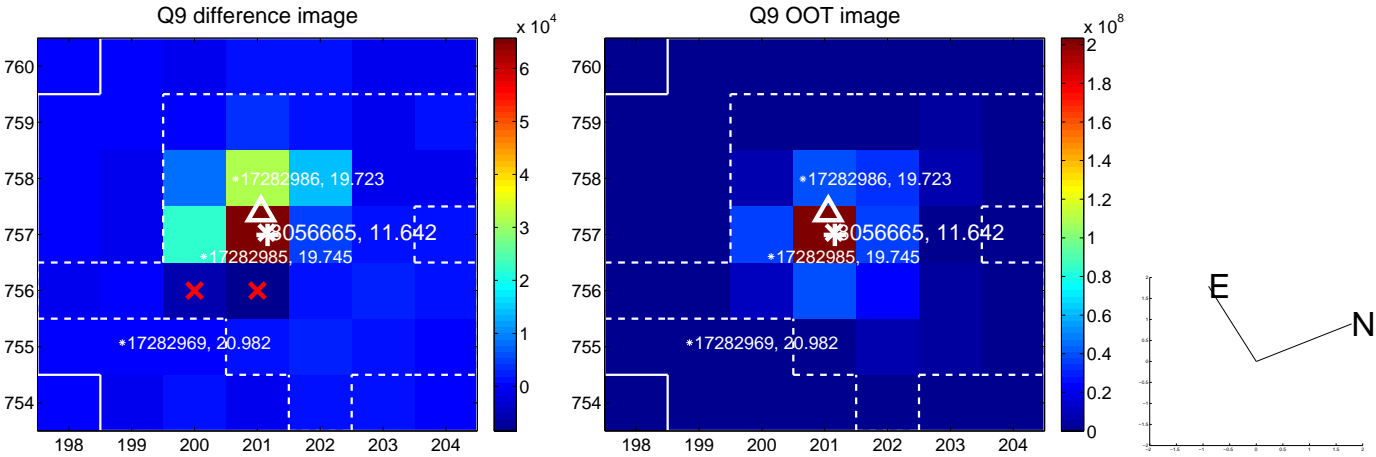
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



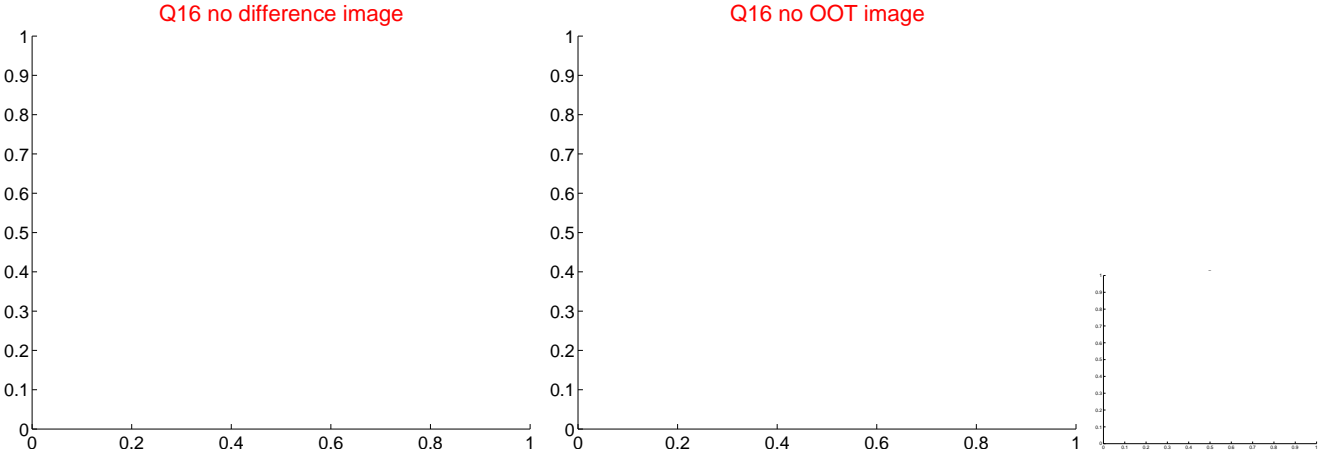
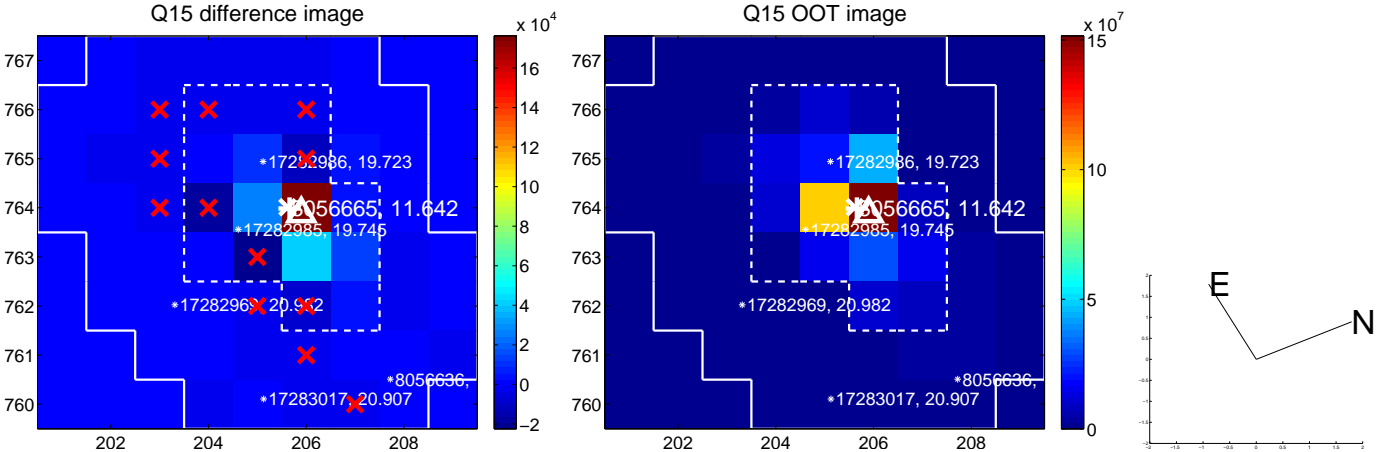
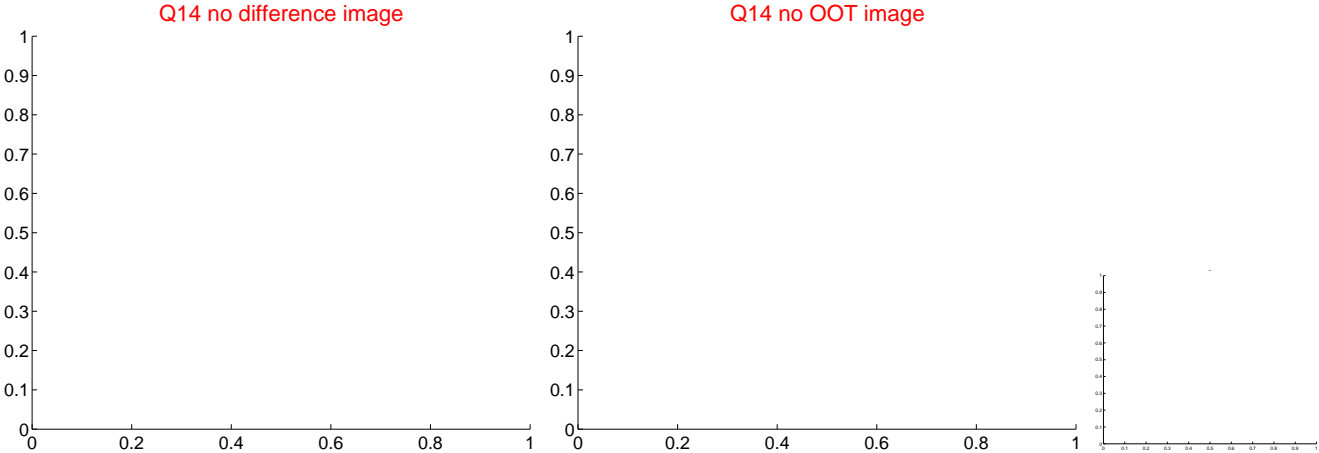
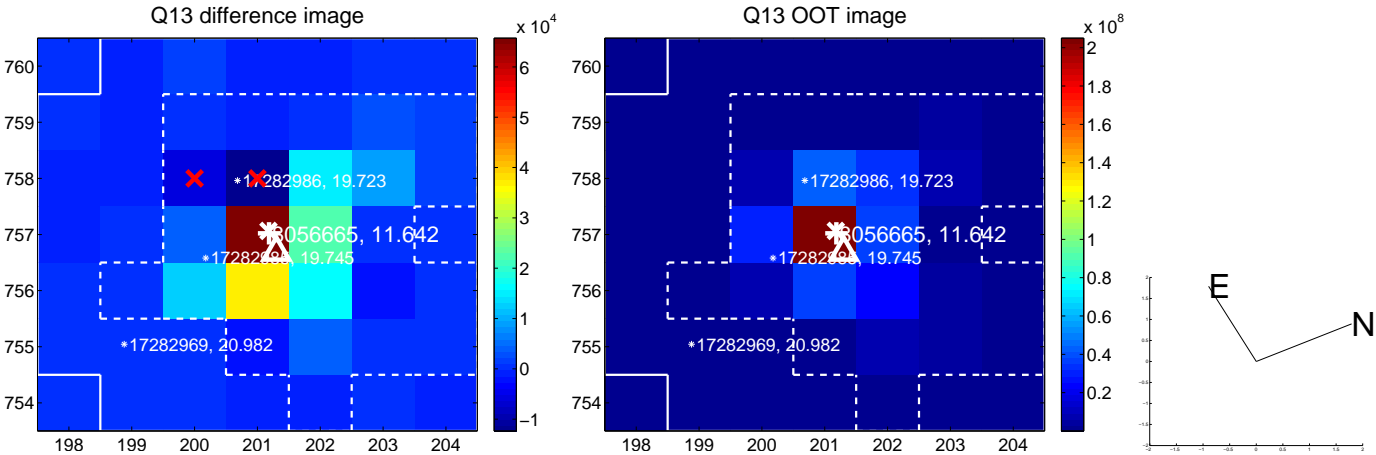
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



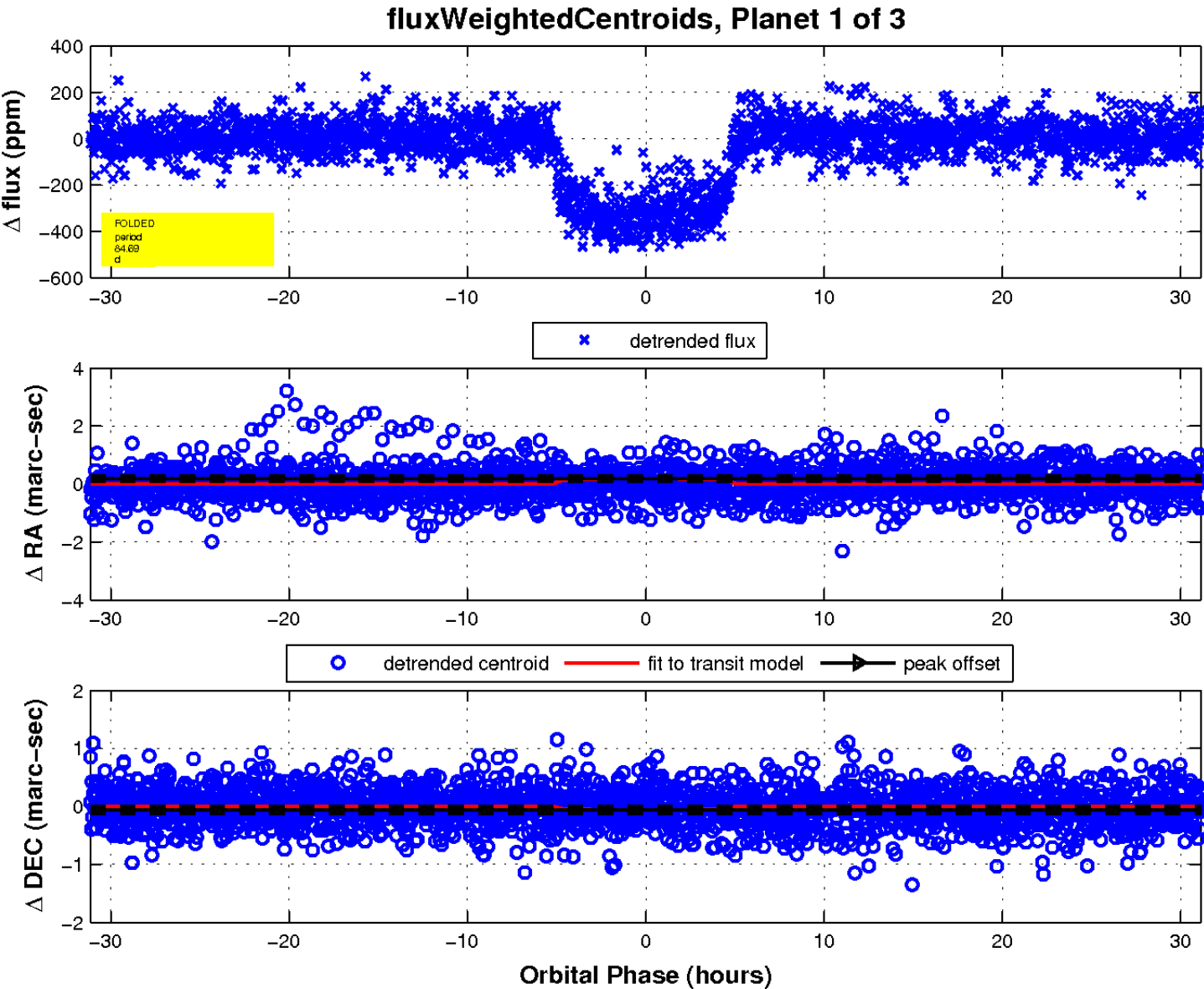
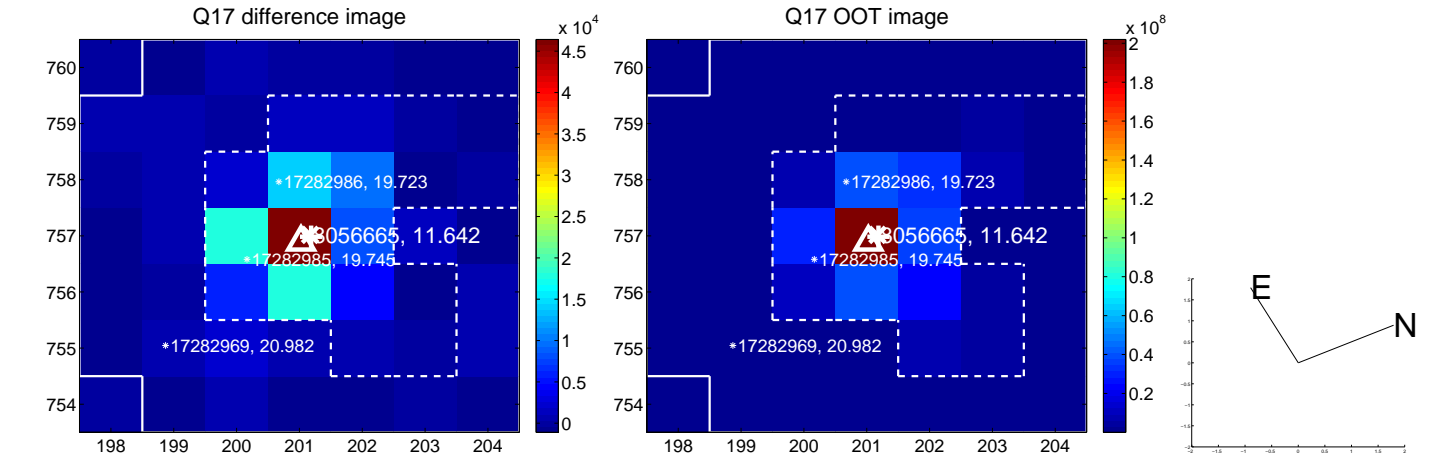
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

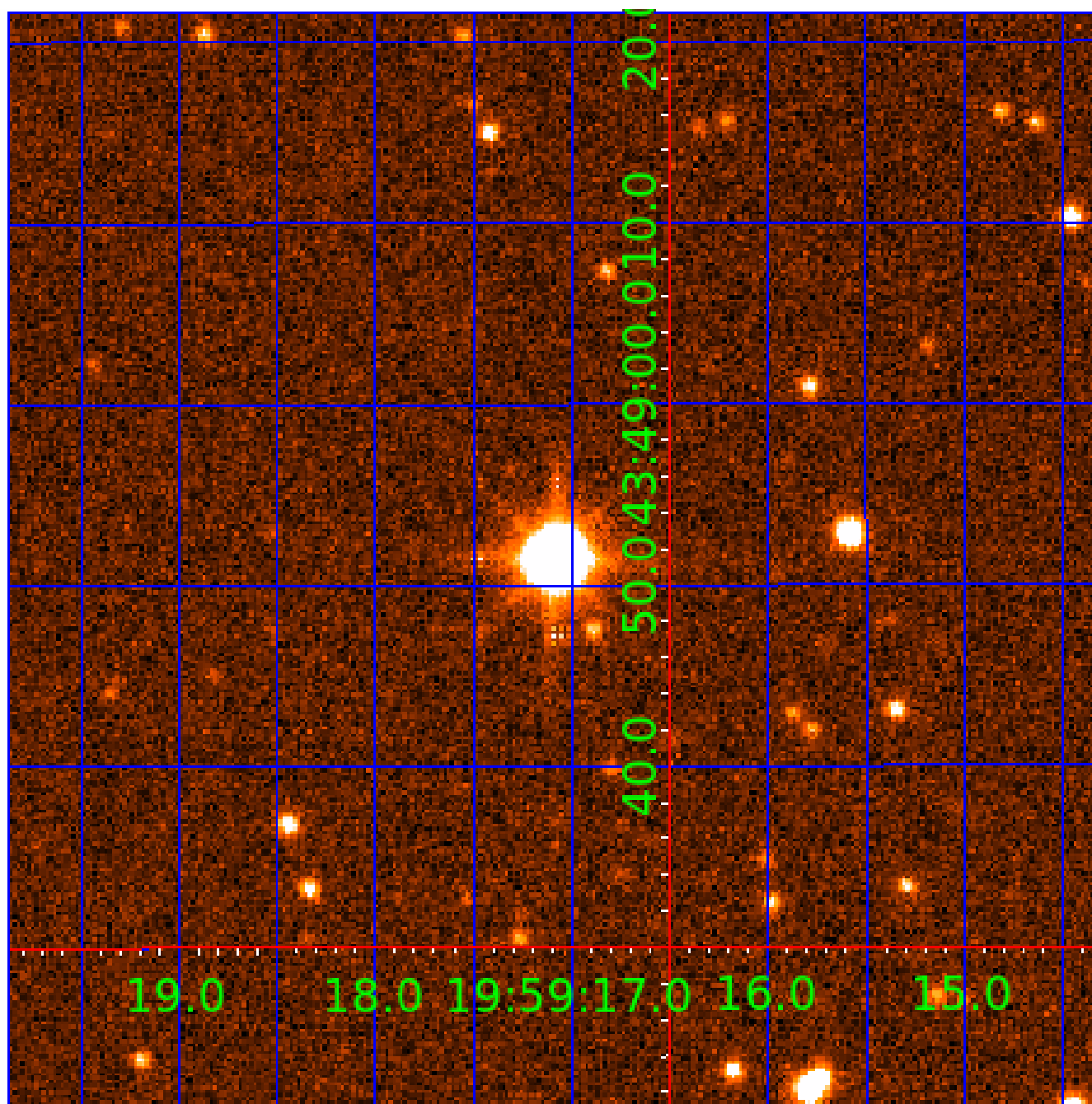


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008056665

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})
008056665-01	OBS	0089.01	84.687687	150.573341	348.7	10.388	71.3	67.3	1.79	6688	3.72	33.03
008056665-02	OBS	0089.02	207.587549	289.863248	491.7	6.787	45.1	46.8	1.79	6688	4.27	9.99
008056665-03	OBS	No	0.960847	131.976215	8.2	2.613	9.0	8.8	1.79	6688	0.60	12955.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008056665-01	OBS	PC	0.88	0	0	0	0	NO_COMMENT
008056665-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
008056665-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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 008056665-02

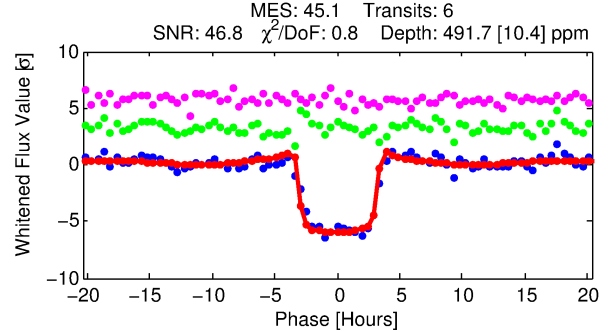
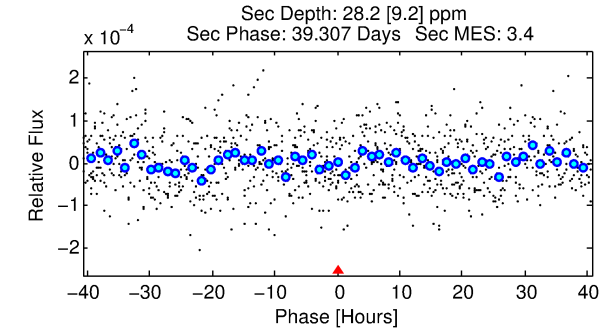
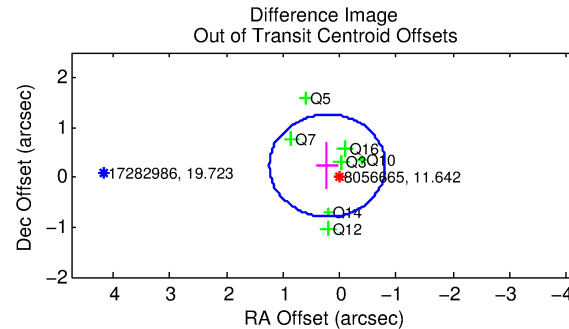
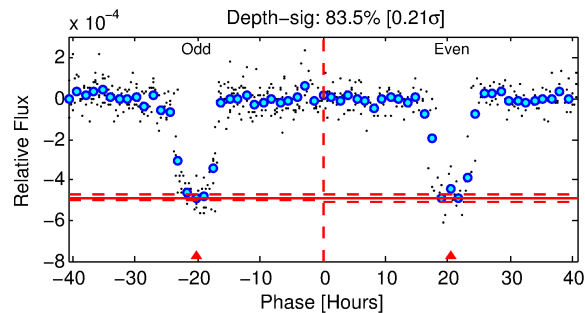
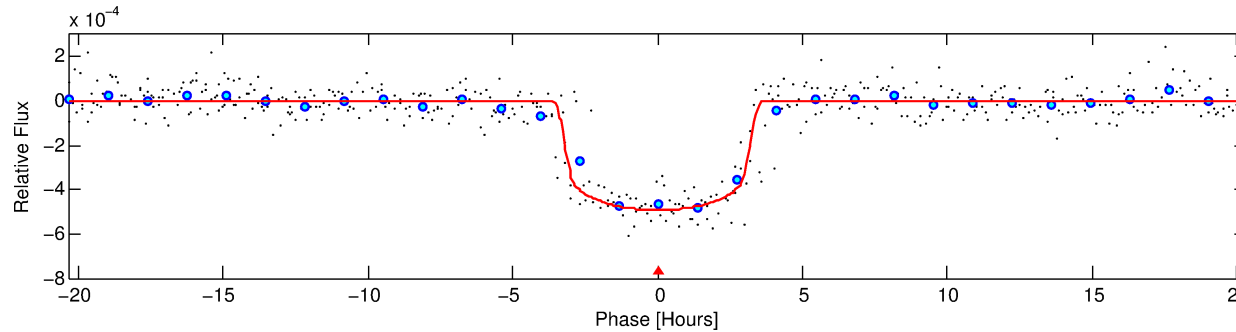
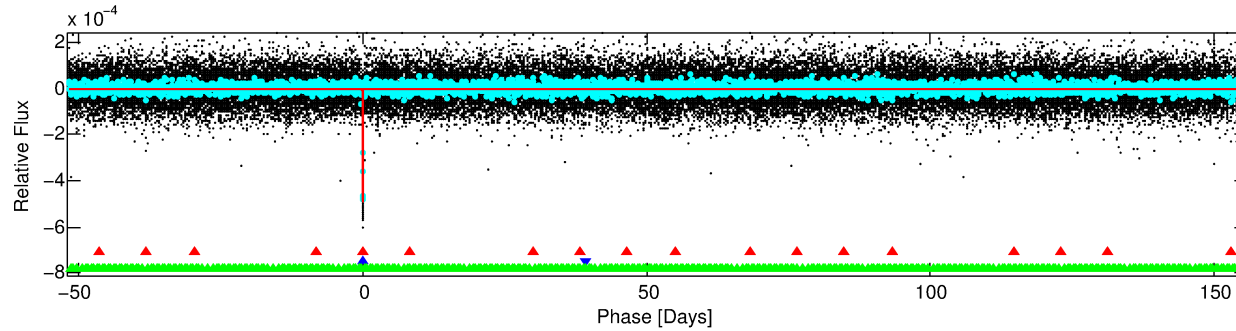
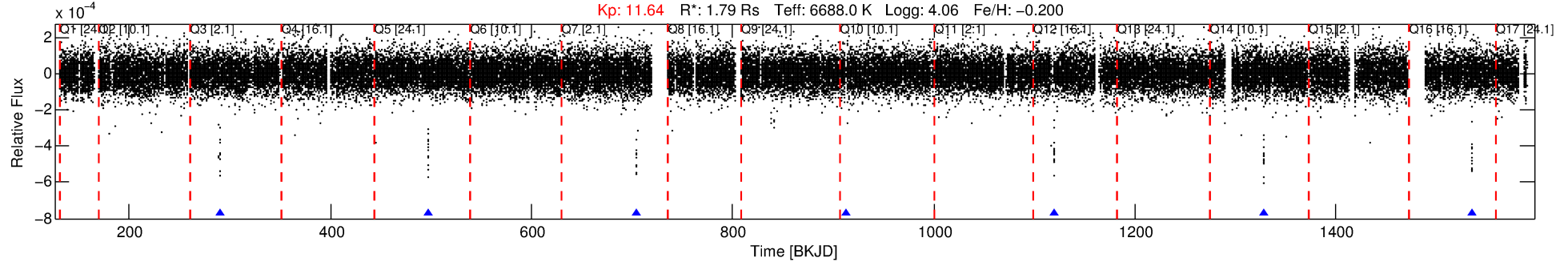
No Significant Match Found

DV One-Page Summary

KIC: 8056665 Candidate: 2 of 3 Period: 207.588 d

KOI: K00089.02 Corr: 0.967

Kp: 11.64 R*: 1.79 Rs Teff: 6688.0 K Logg: 4.06 Fe/H: -0.200



DV Fit Results:

Period = 207.58755 [0.00049] d
Epoch = 289.8632 [0.0019] BKJD
Rp/R* = 0.0218 [0.0018]
a/R* = 170.54 [78.16]
b = 0.72 [0.32]
Seff = 9.99 [3.21]
Teq = 453 [36] K
Rp = 4.27 [1.05] Re
a = 0.7581 [0.1549] AU
Ag = 490.62 [234.40] [2.09σ]
Teffp = 3299 [309] K [9.13σ]

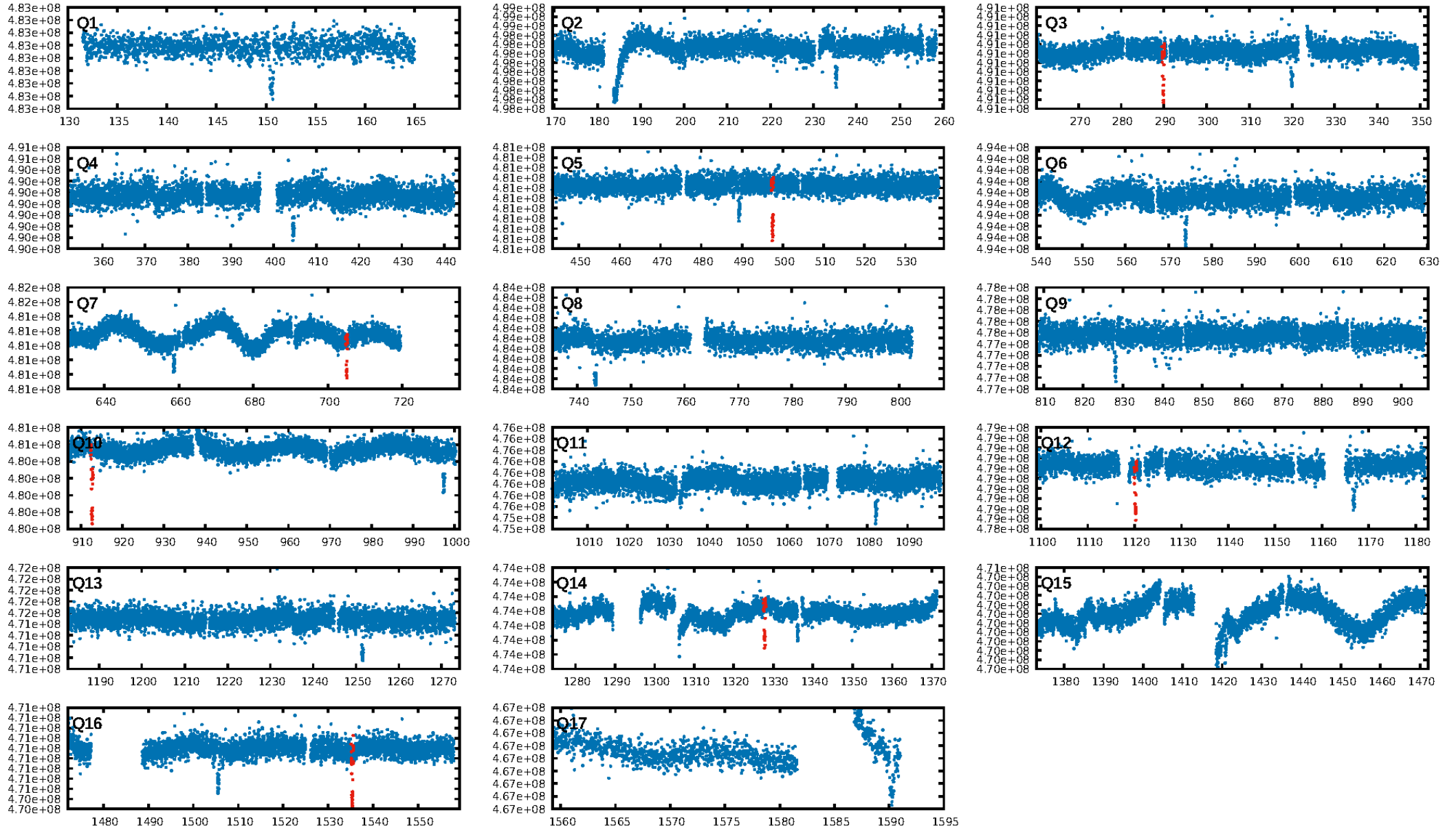
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [237.71σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 43.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 9.191
Centroid-sig: 2.4%
Centroid-so: 0.096 arcsec [0.42σ]
OotOffset-rm: 0.316 arcsec [0.92σ]
KicOffset-rm: 0.356 arcsec [0.77σ]
OotOffset-st: 2/2/2/1 [7]
KicOffset-st: 2/2/2/1 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 0.00 [0/7]

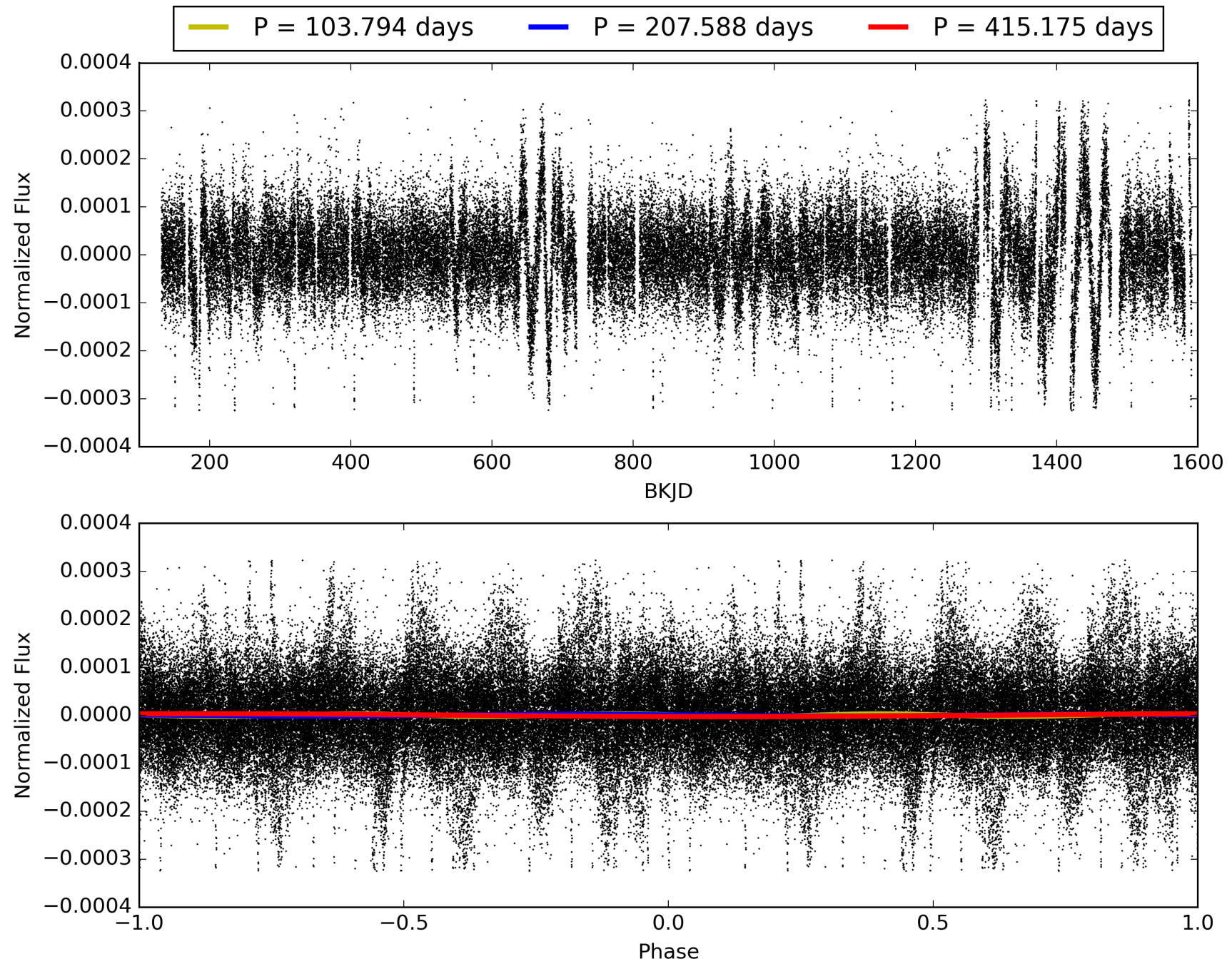
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:18:45 Z

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

TCE 008056665-02, PDC Light Curves

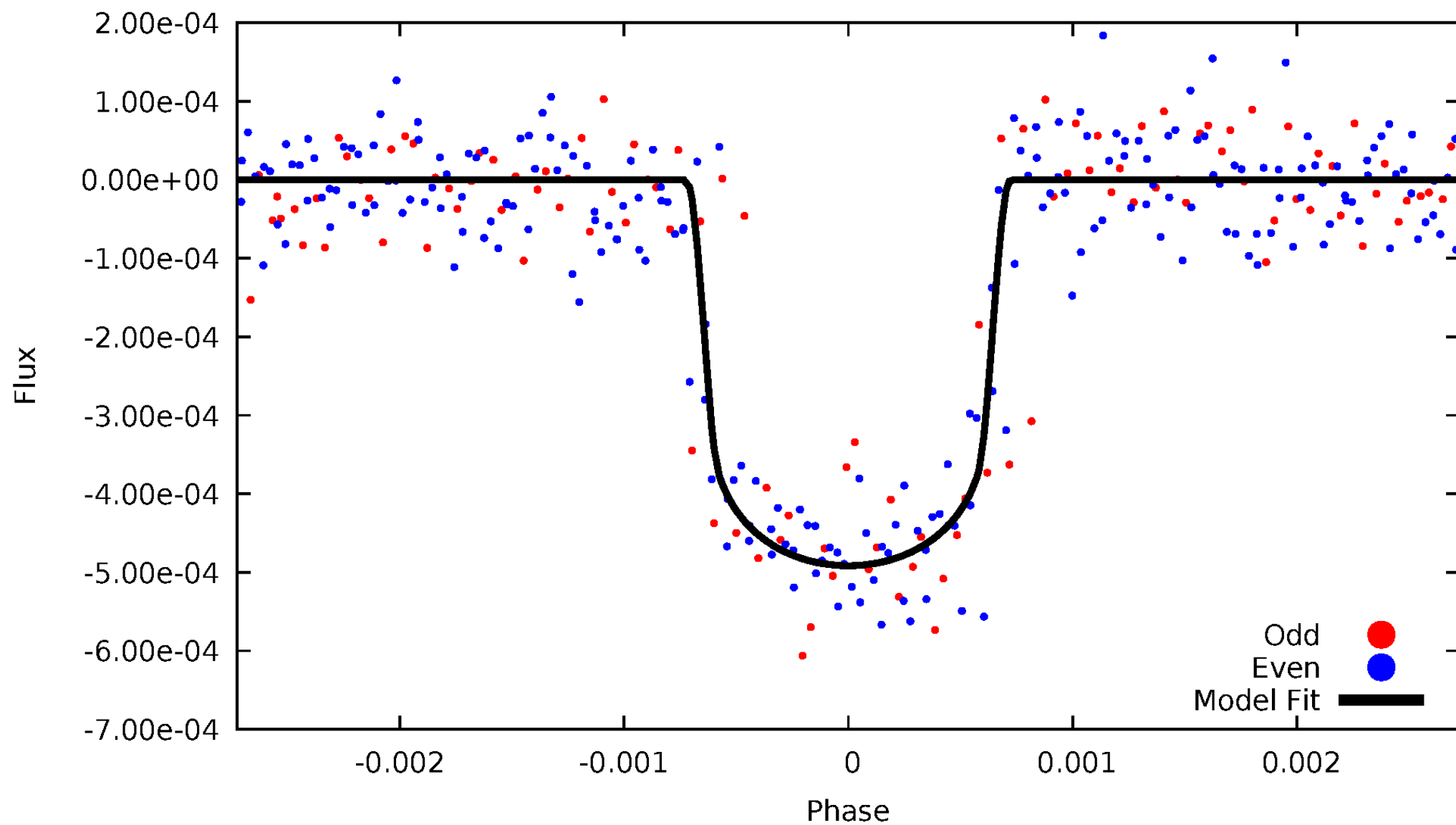


TCE 008056665-02



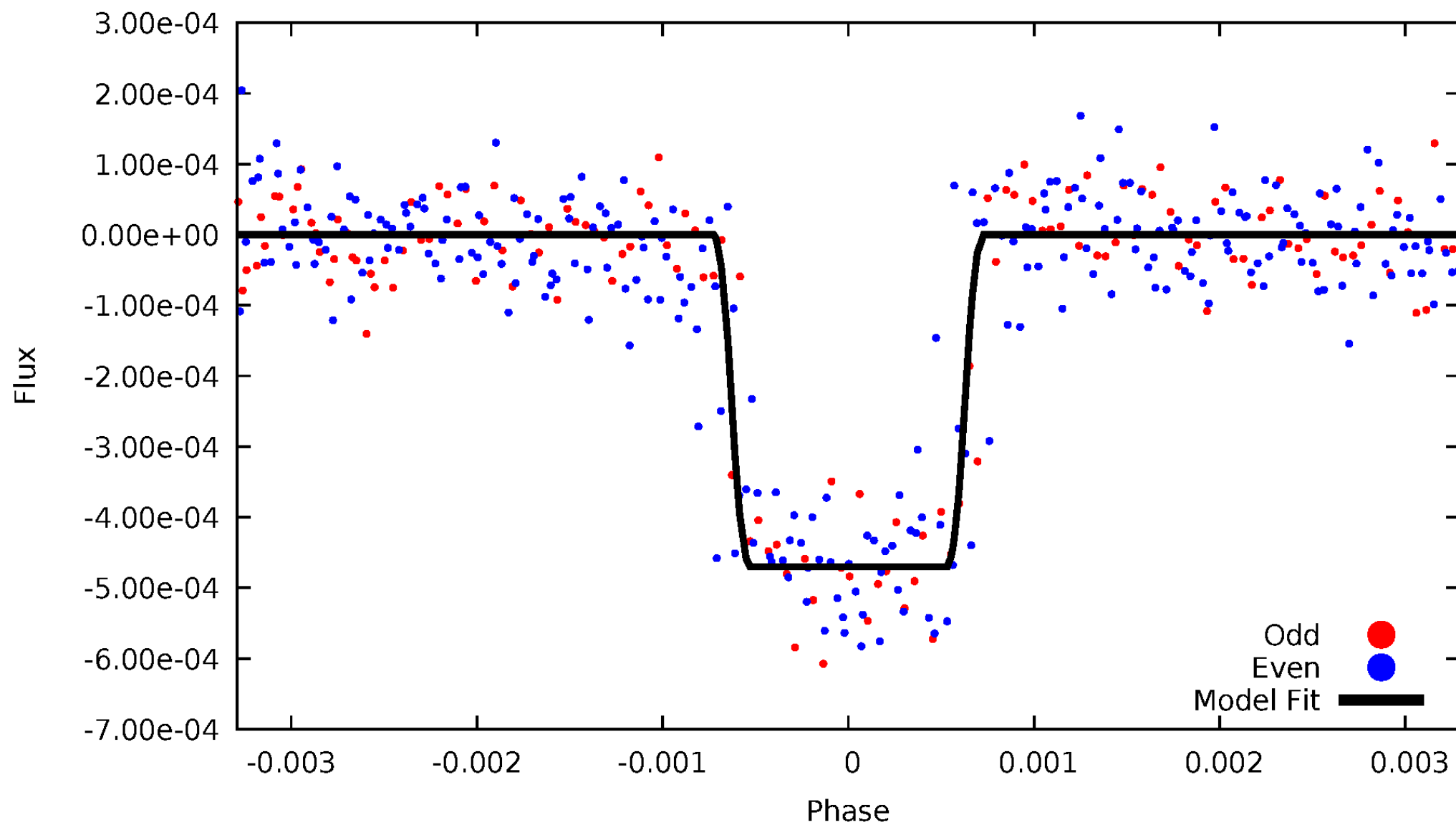
DV Odd/Even

TCE 008056665-02



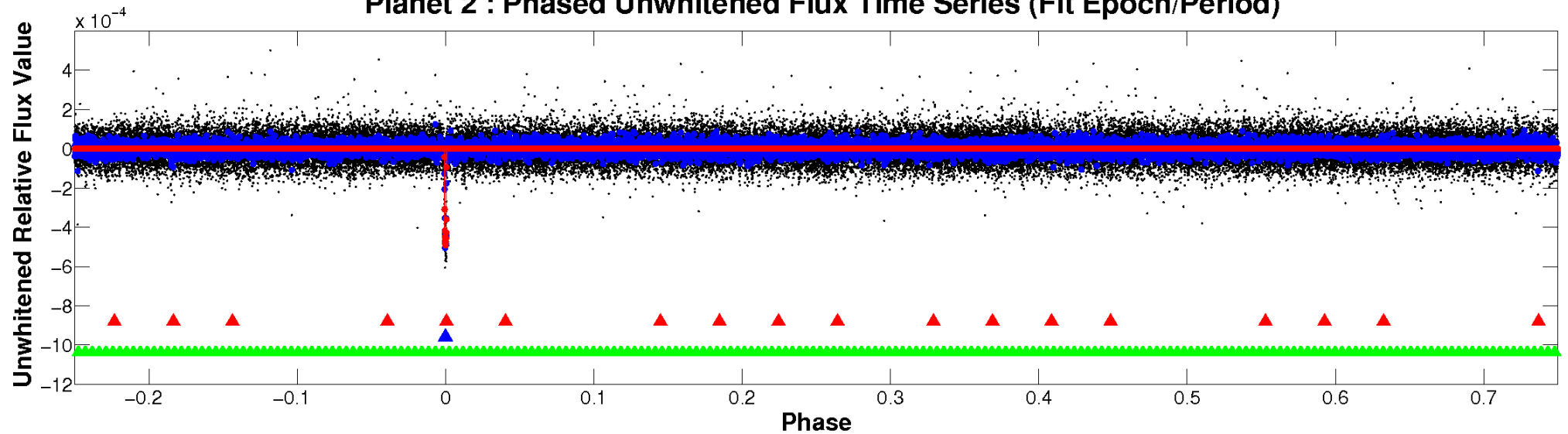
ALT Odd/Even

TCE 008056665-02

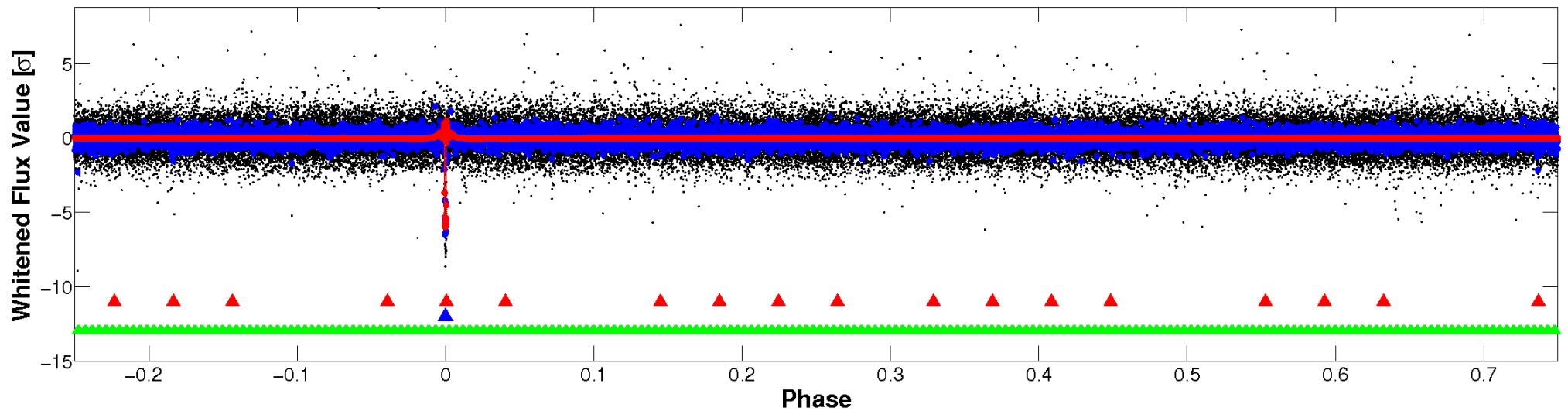


Non-Whitened Vs. Whitened Light Curve

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

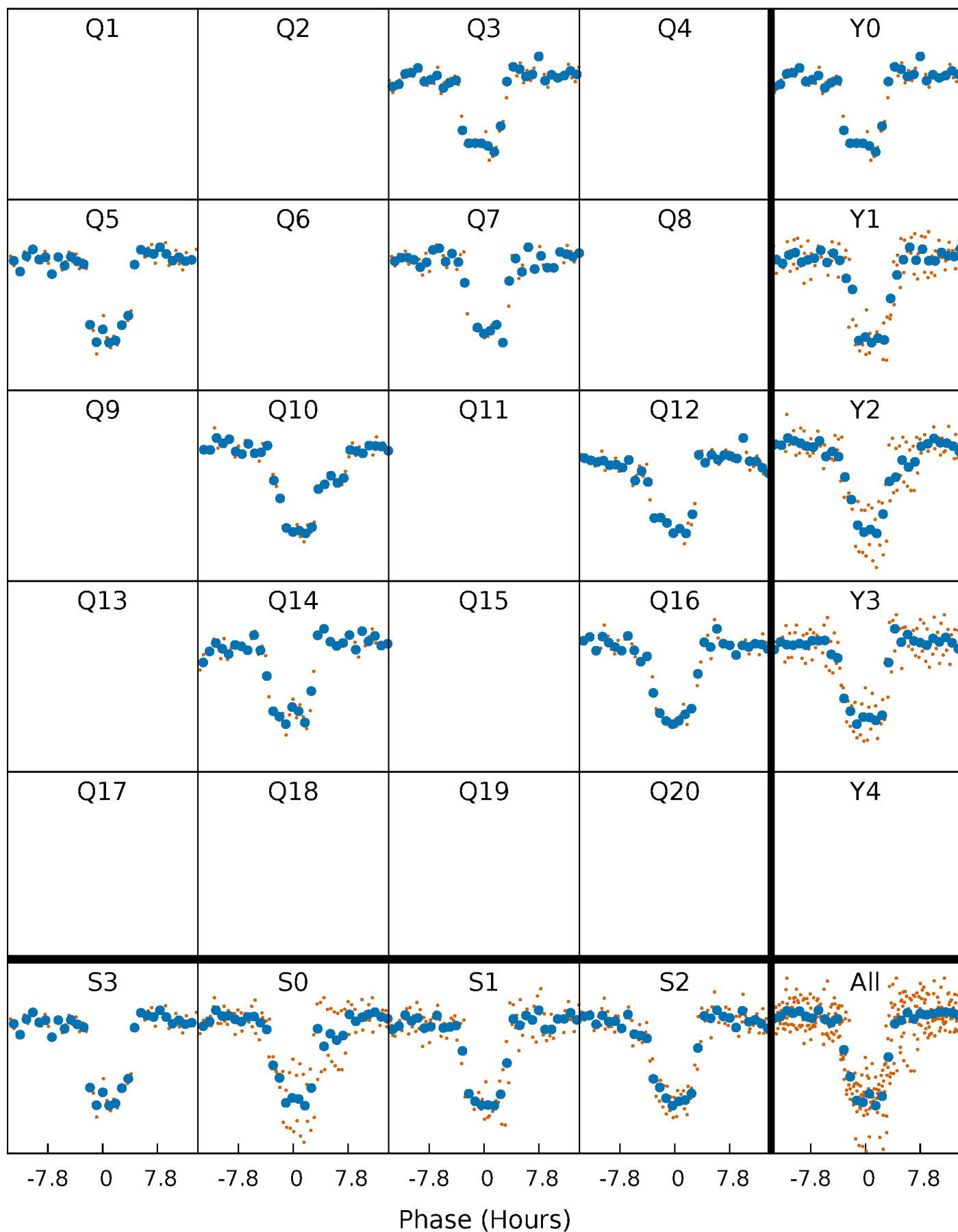


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



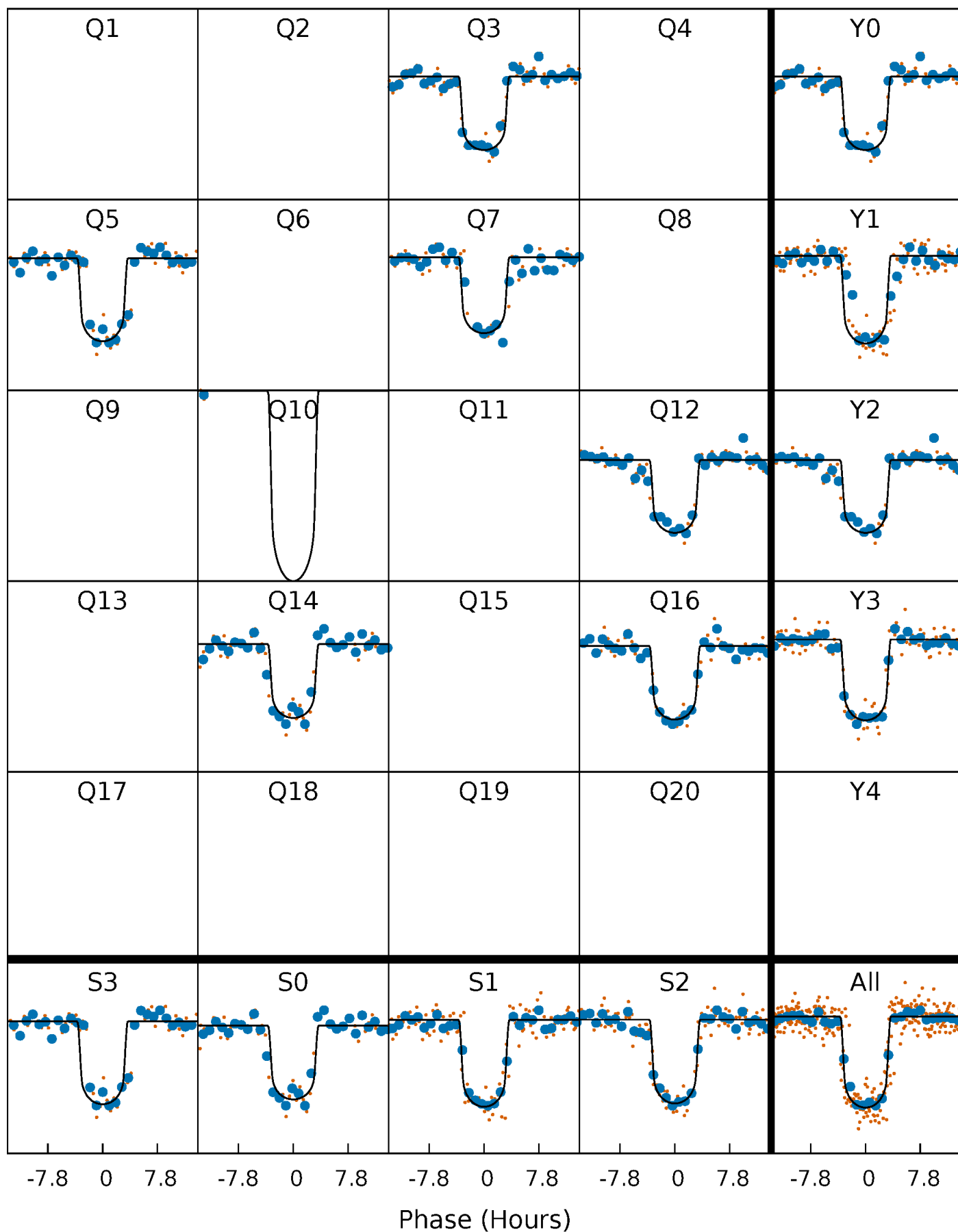
PDC Quarter-Phased Transit Curves

TCE 008056665-02 $P=207.587549$ Days $T_0=289.863247$ (BKJD)



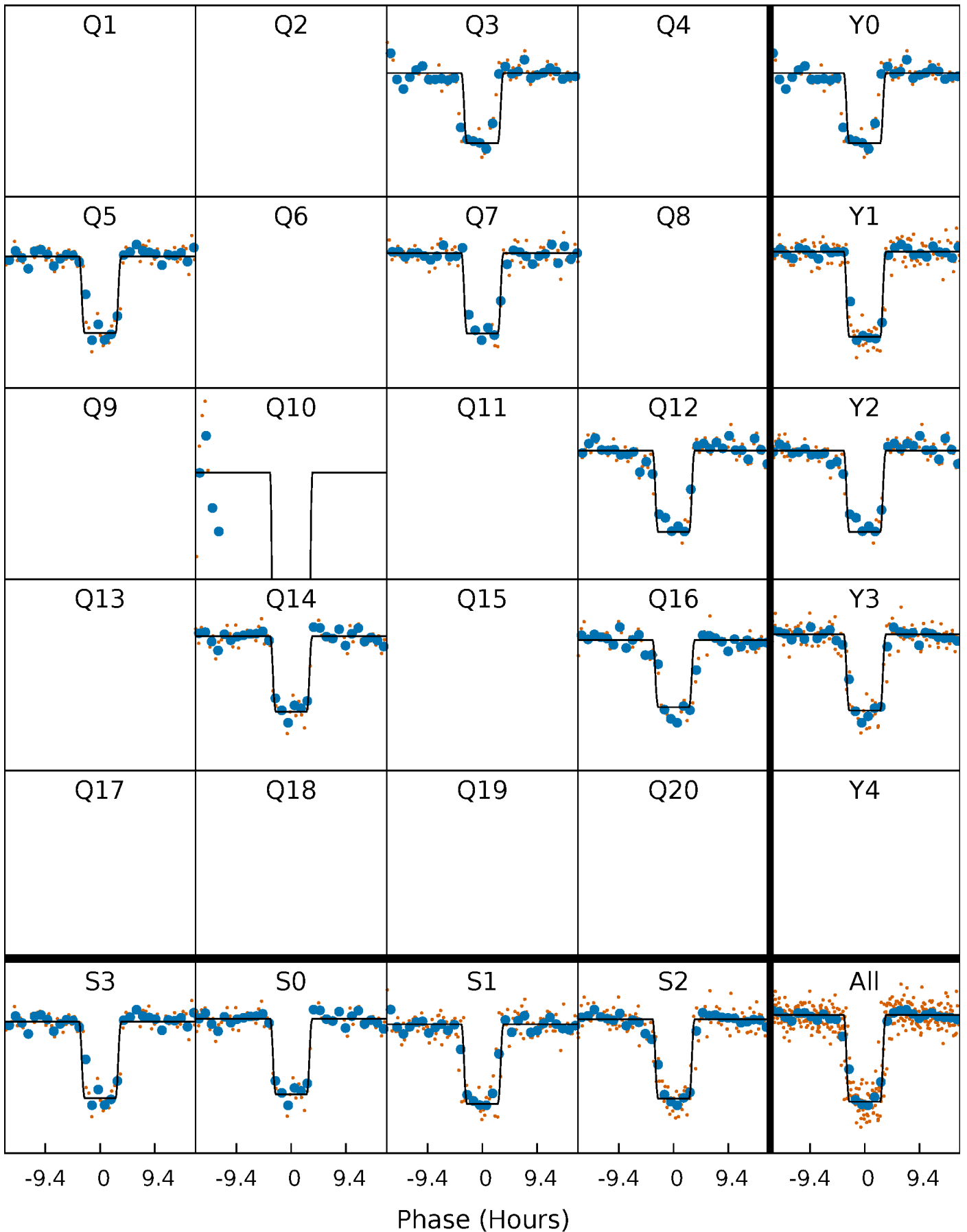
DV Quarter-Phased Transit Curves

TCE 008056665-02 $P=207.587549$ Days $T_0=289.863247$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

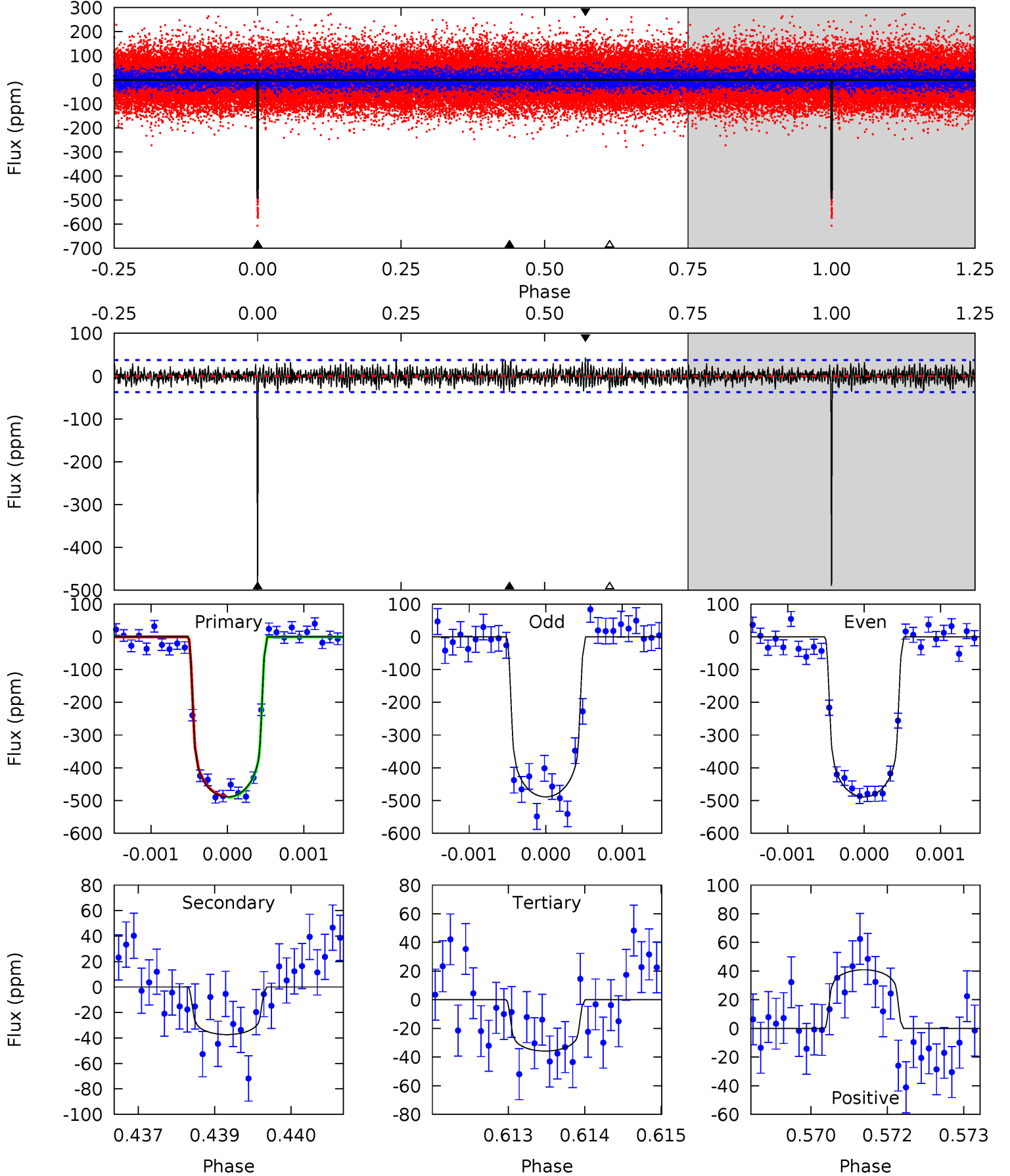
TCE 008056665-02 P=207.577725 Days $T_0=289.898063$ (BKJD)



DV Model-Shift Uniqueness Test

008056665-02, $P = 207.587549$ Days, $E = 82.275698$ Days

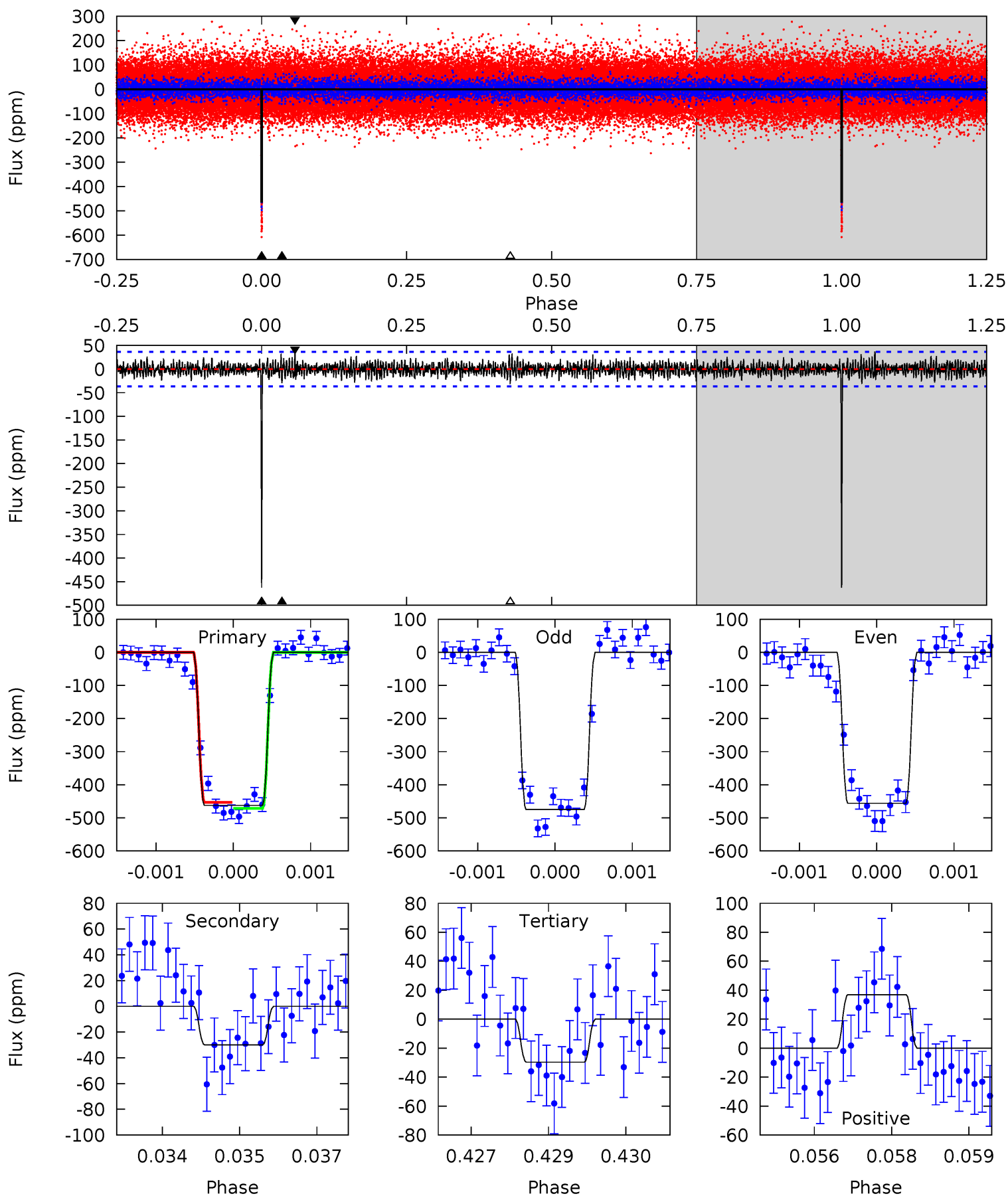
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
70.3	5.37	5.14	5.88	5.39	3.19	1.60	65.1	64.4	0.22	-0.51	0.00	1.00	0.08	0.25



Alt Model-Shift Uniqueness Test

008056665-02, P = 207.577725 Days, E = 82.320338 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.2	4.41	4.37	5.45	5.39	3.19	1.33	63.8	62.8	0.04	-1.04	1.30	0.99	0.07	1.29



Stellar Parameters For KIC 008056665

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6688^{+120}_{-147}	$4.062^{+0.174}_{-0.116}$	$-0.200^{+0.150}_{-0.150}$	$1.790^{+0.311}_{-0.415}$	$1.353^{+0.096}_{-0.178}$	$0.332^{+0.294}_{-0.115}$
	+2%/-2%	+4%/-3%	+75%/-75%	+17%/-23%	+7%/-13%	+89%/-34%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 008056665-02 / KOI 0089.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-37 ± 7	$4.23^{+0.59}_{-0.60}$	632^{+32}_{-38}	3881^{+181}_{-182}	655^{+255}_{-187}
Alt.	-30 ± 7	$4.19^{+0.60}_{-0.58}$	631^{+35}_{-37}	3752^{+172}_{-193}	532^{+226}_{-170}

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 $A_{obs} \gg 1.0$

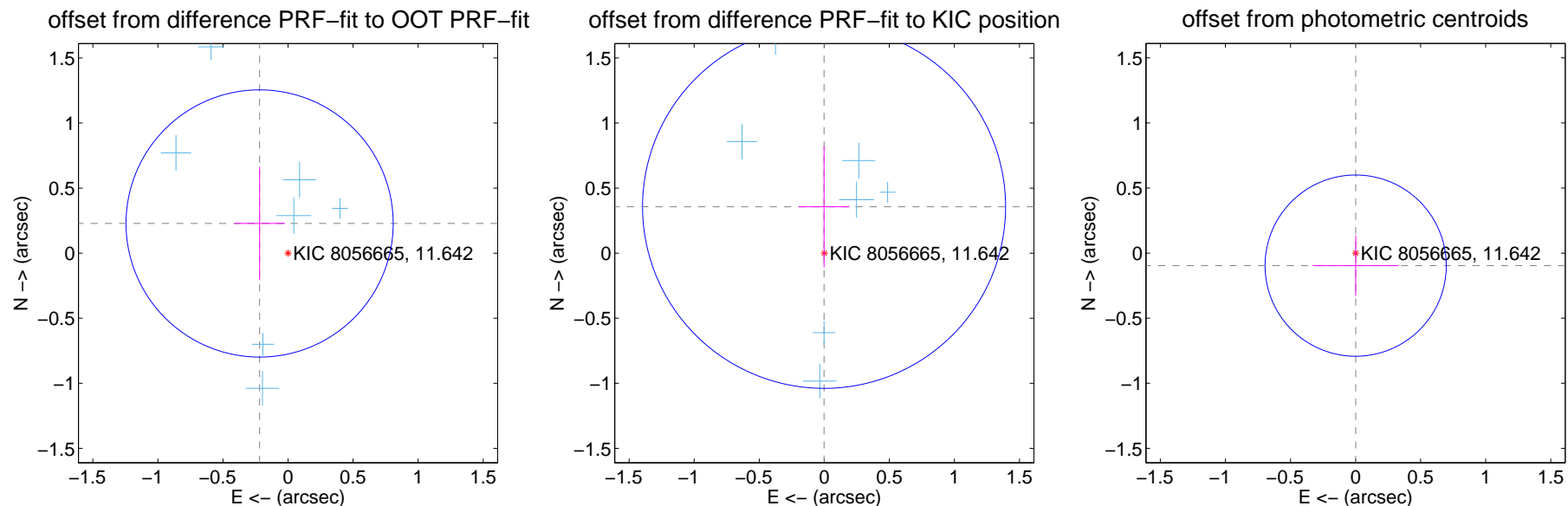
DV Centroid Data

Supplemental centroid analysis for 008056665-02. **Kepler magnitude: 11.64.** Transit SNR 46.75

There are 7 quarters with good PRF difference image offsets

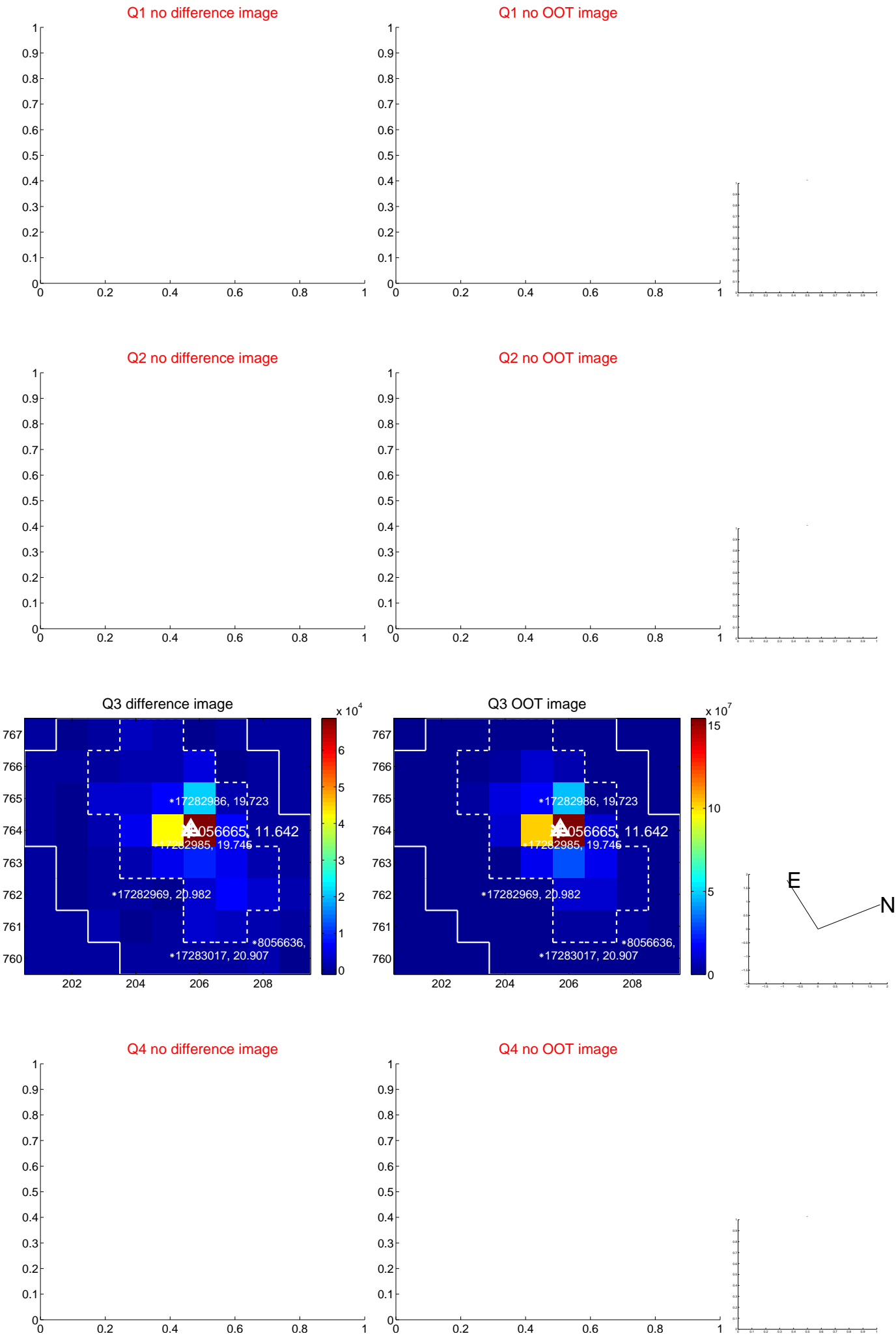
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.316 ± 0.342	0.92	0.218 ± 0.195	0.228 ± 0.436
PRF-fit source offset from KIC position	0.356 ± 0.465	0.77	0.002 ± 0.195	0.356 ± 0.465
photometric centroid source offset	0.10 ± 0.23	0.42	-0.00 ± 0.33	-0.10 ± 0.23

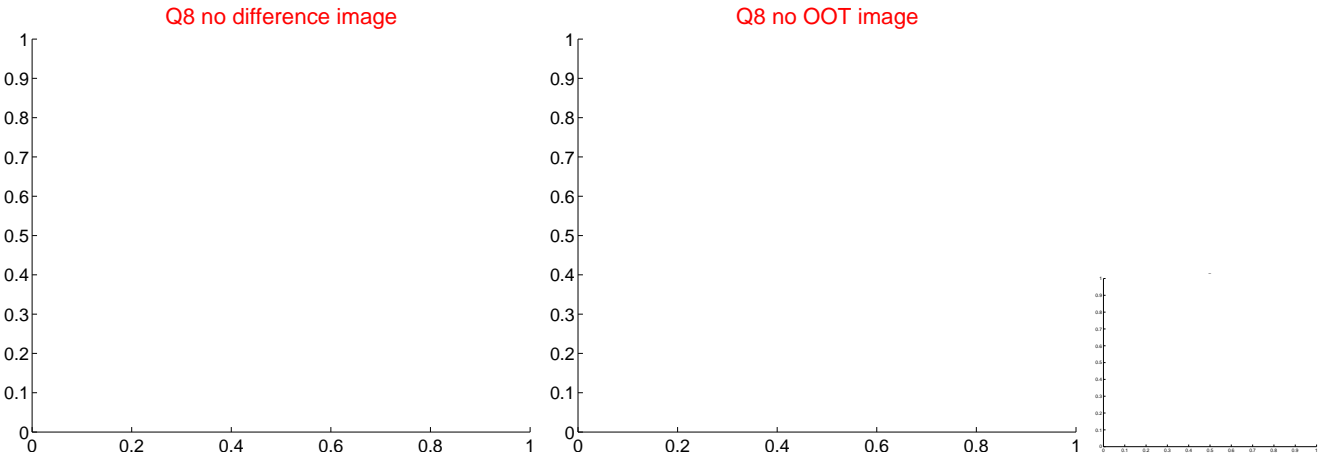
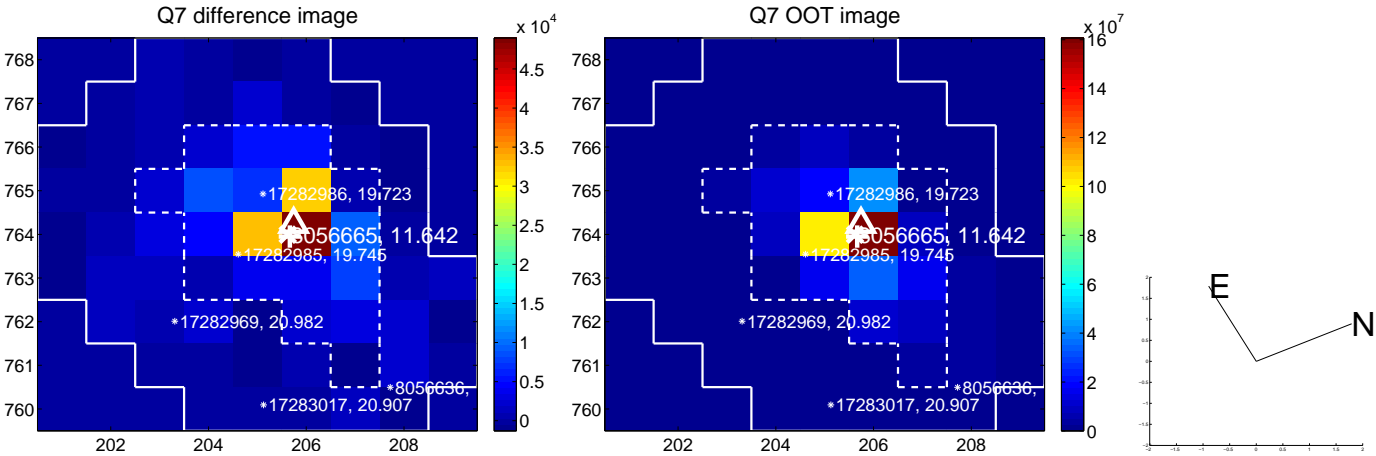
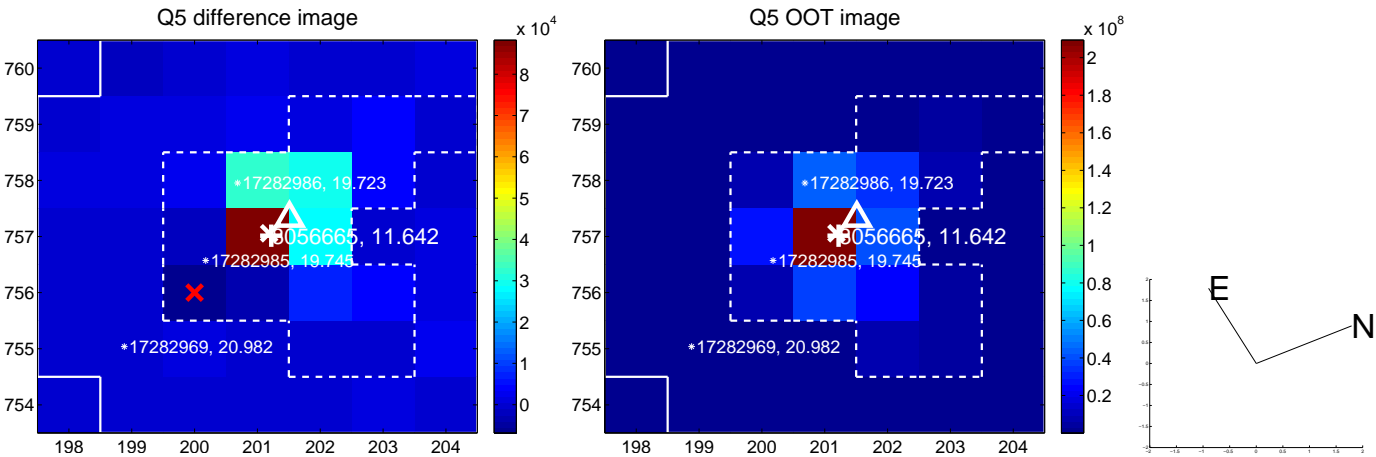


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

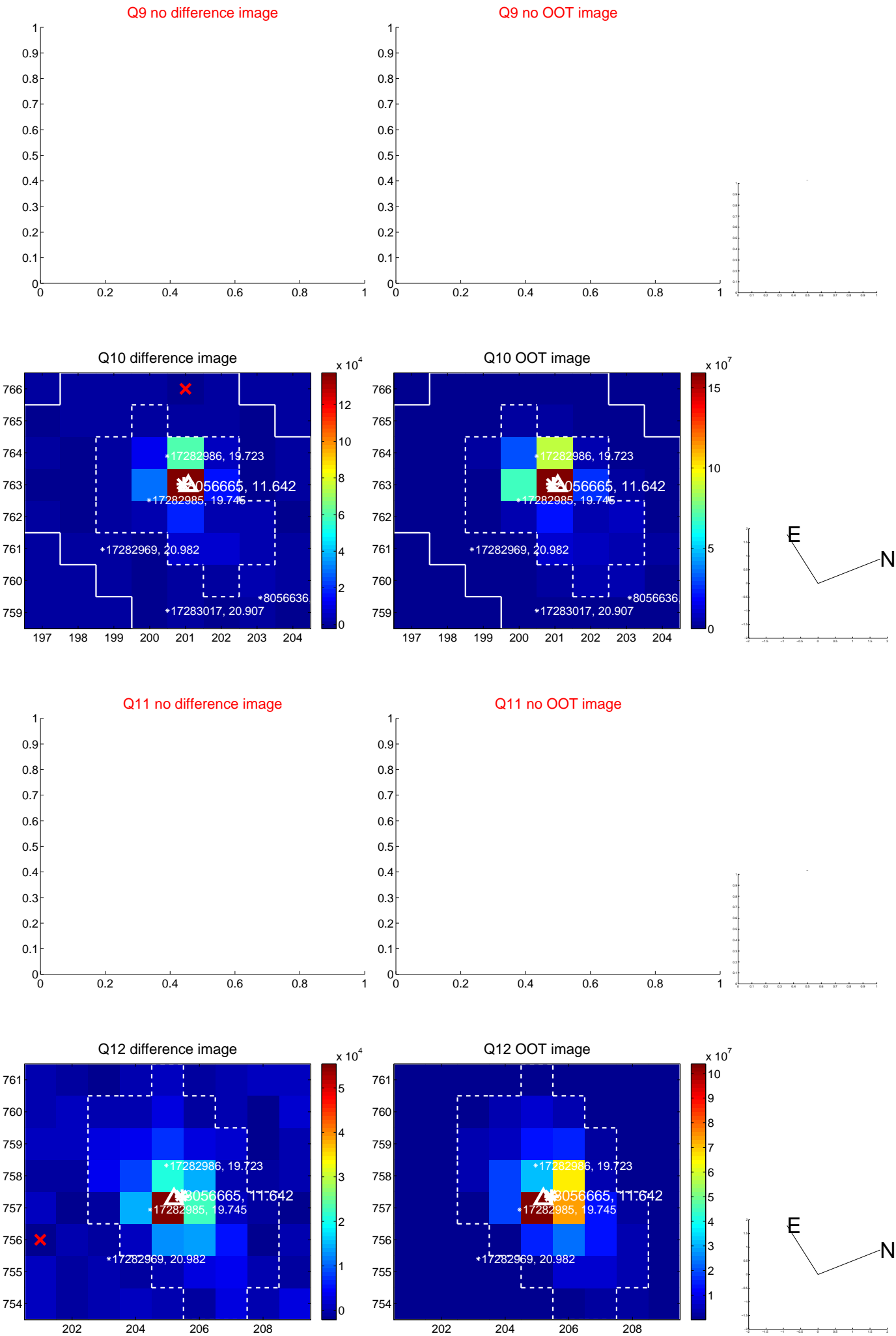
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



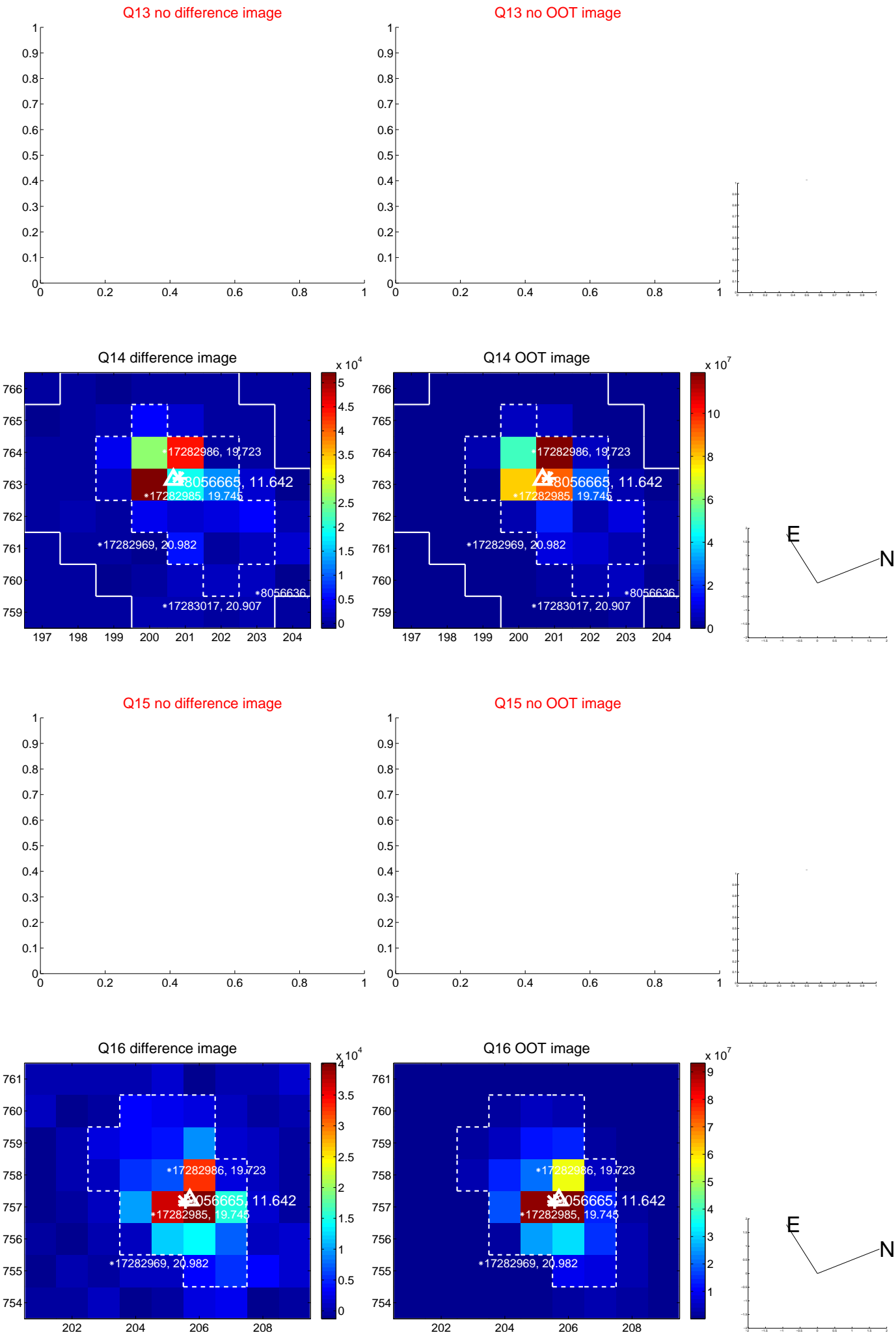
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



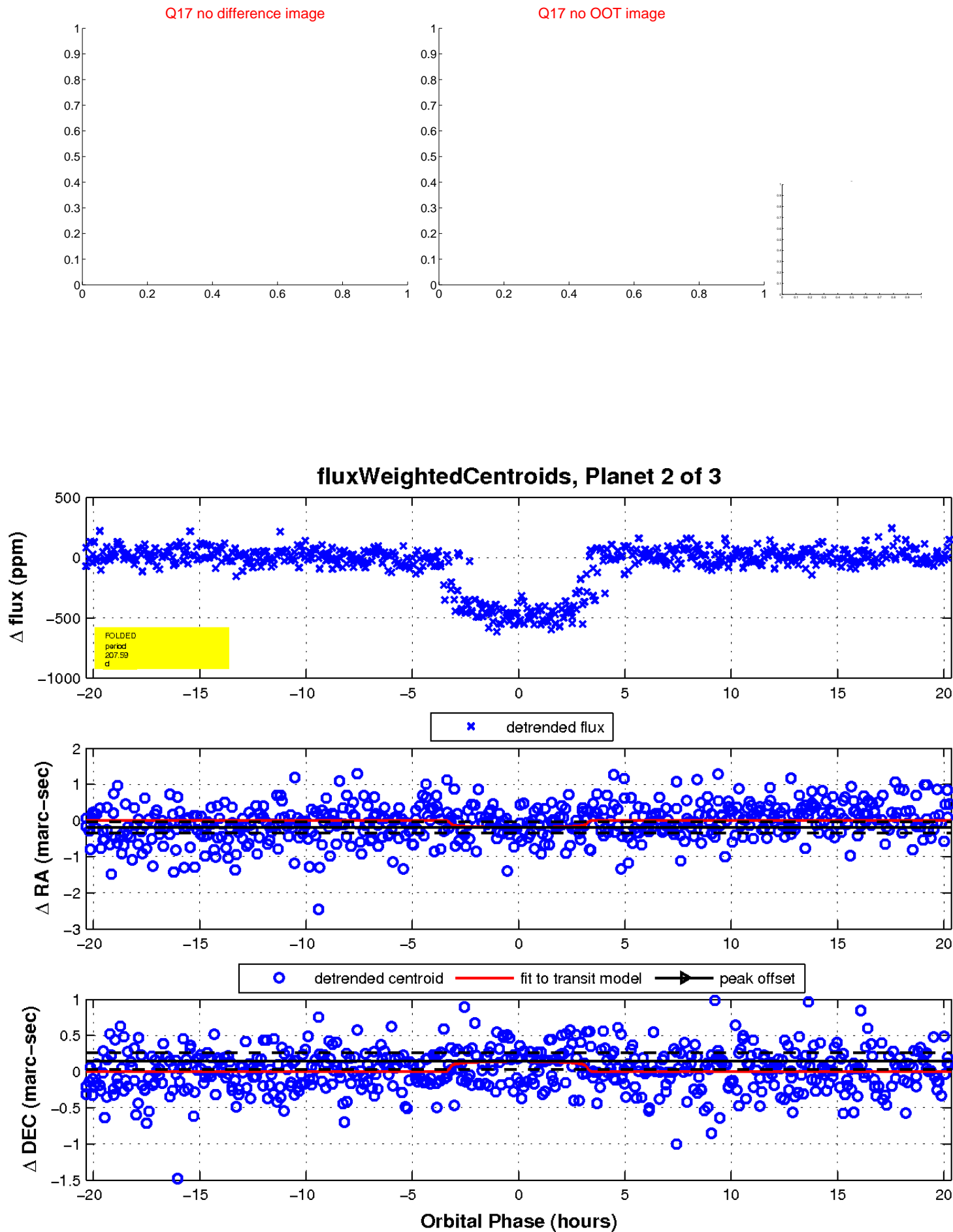
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

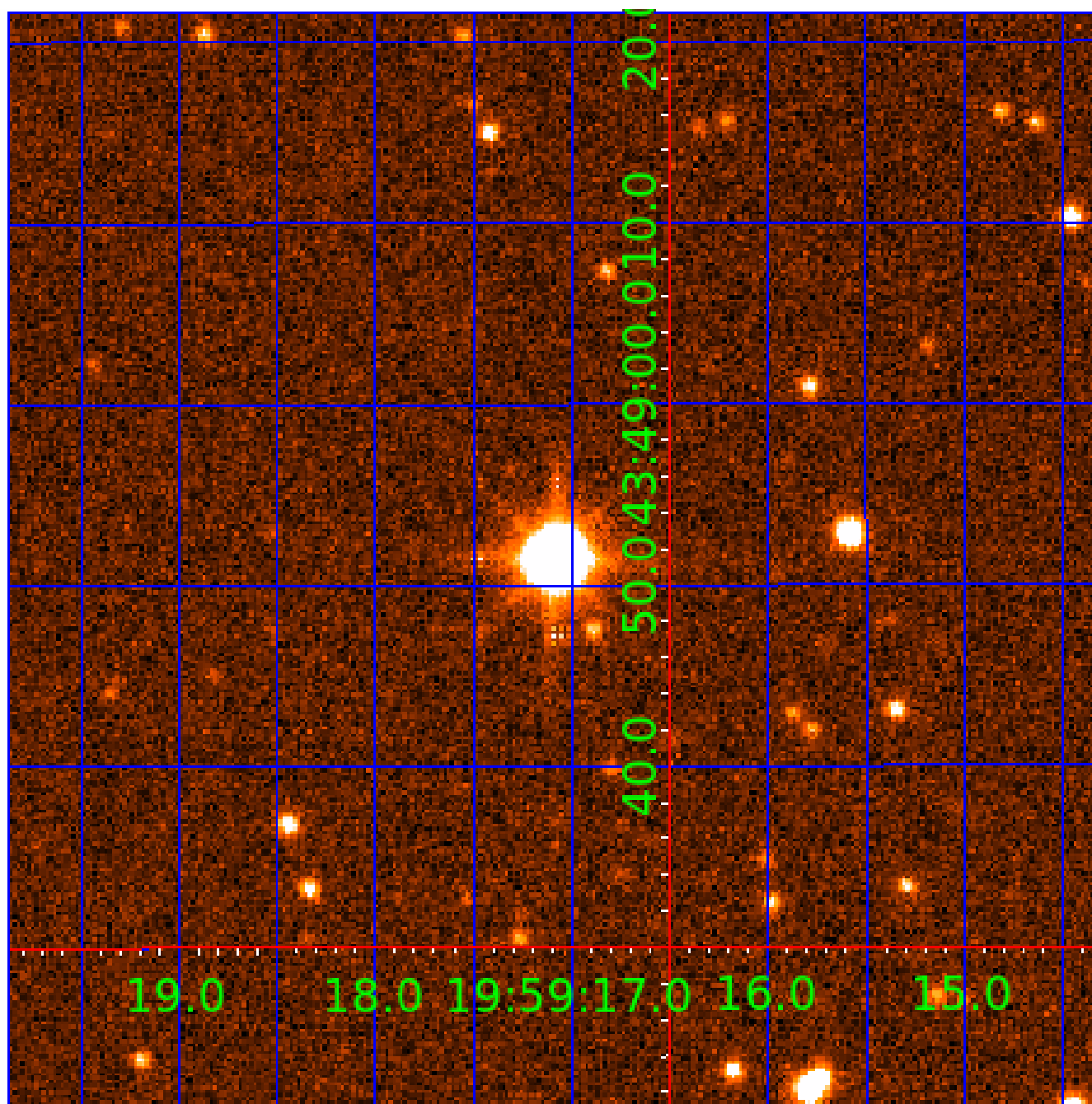


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008056665

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})
008056665-01	OBS	0089.01	84.687687	150.573341	348.7	10.388	71.3	67.3	1.79	6688	3.72	33.03
008056665-02	OBS	0089.02	207.587549	289.863248	491.7	6.787	45.1	46.8	1.79	6688	4.27	9.99
008056665-03	OBS	No	0.960847	131.976215	8.2	2.613	9.0	8.8	1.79	6688	0.60	12955.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008056665-01	OBS	PC	0.88	0	0	0	0	NO_COMMENT
008056665-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
008056665-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

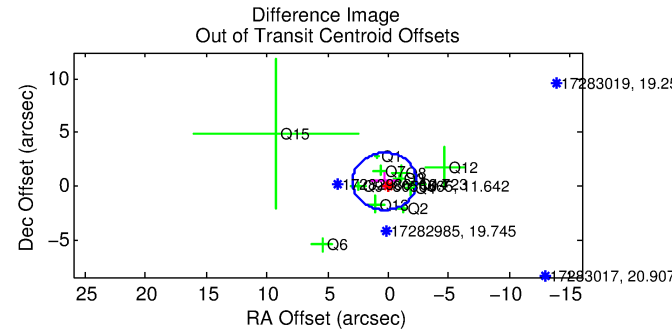
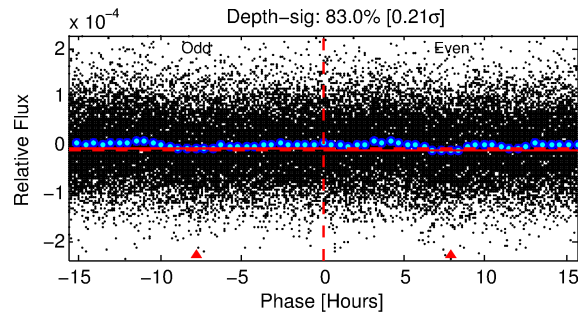
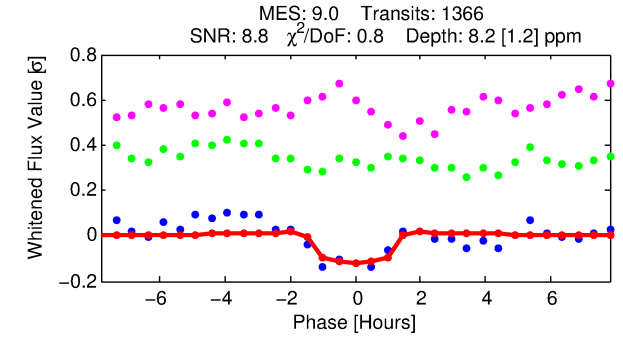
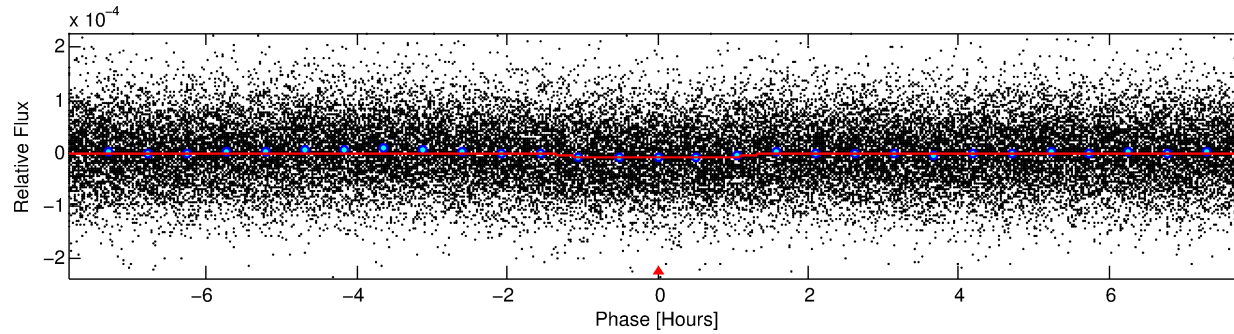
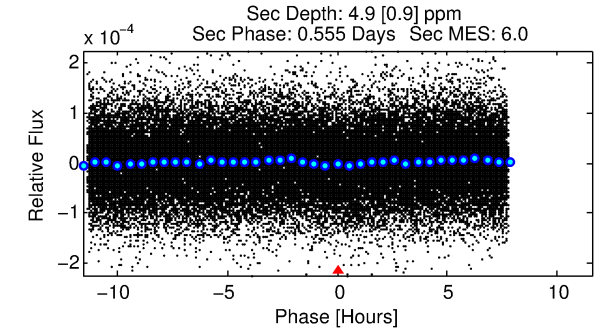
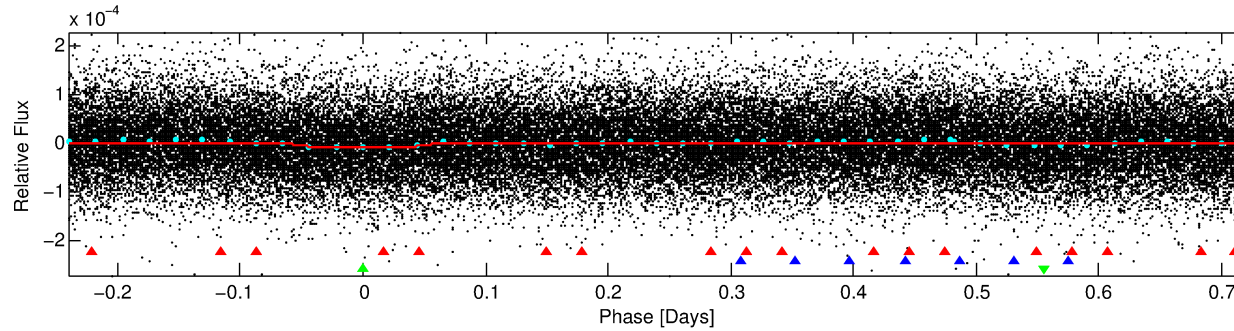
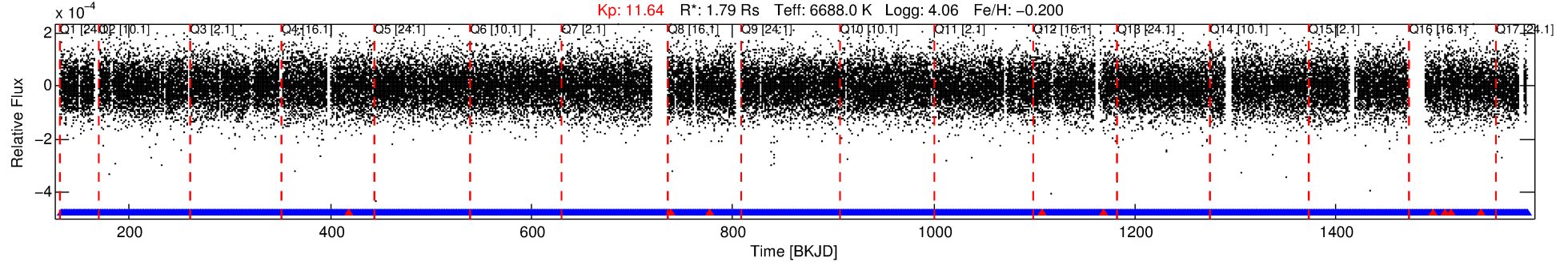
Ephemeris Match Information For 008056665-03

No Significant Match Found

DV One-Page Summary

KIC: 8056665 Candidate: 3 of 3 Period: 0.961 d
KOI: K00089 Corr: No Ephemeris Match

Kp: 11.64 R*: 1.79 Rs Teff: 6688.0 K Logg: 4.06 Fe/H: -0.200



DV Fit Results:

Period = 0.96085 [0.00001] d
Epoch = 131.9762 [0.0035] BKJD
Rp/R* = 0.0030 [0.0005]
a/R* = 1.56 [0.82]
b = 0.90 [0.19]
Seff = 12955.15 [4157.00]
Teq = 2720 [218] K
Rp = 0.60 [0.17] Re
a = 0.0211 [0.0043] AU
Ag = 3.37 [1.65] [1.43σ]
Teffp = 5697 [556] K [4.98σ]

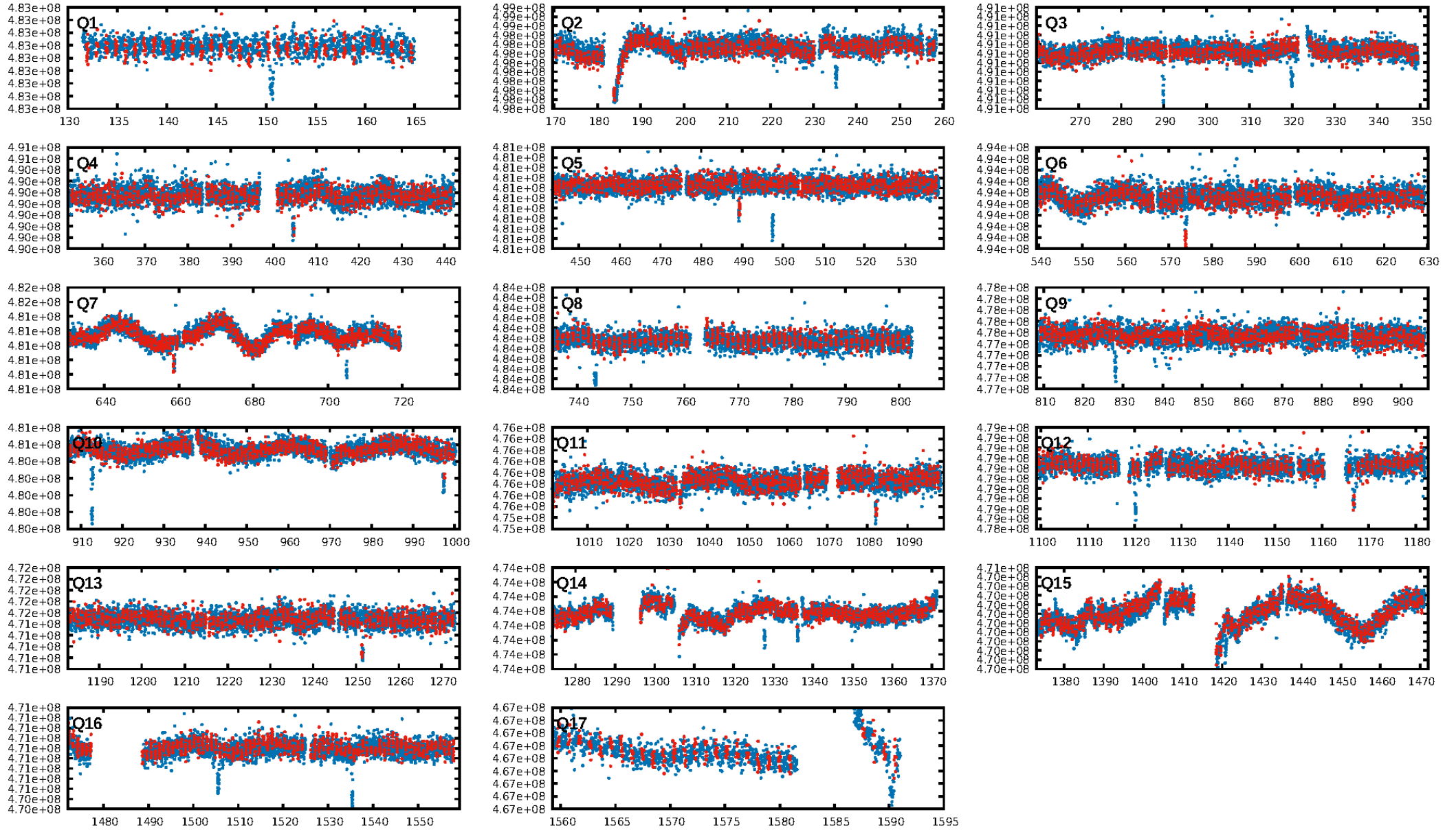
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [187.60σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.36e-17
RollingBand-fgt: 0.99 [1297/1306]
GhostDiagnostic-chr: 2.079
Centroid-sig: 0.9%
Centroid-so: 2.449 arcsec [1.61σ]
OotOffset-rm: 0.537 arcsec [0.60σ]
KicOffset-rm: 0.522 arcsec [0.74σ]
OotOffset-st: 3/3/3/3 [12]
KicOffset-st: 3/3/3/3 [12]
DiffImageQuality-fgm: 0.58 [7/12]
DiffImageOverlap-fno: 1.00 [17/17]

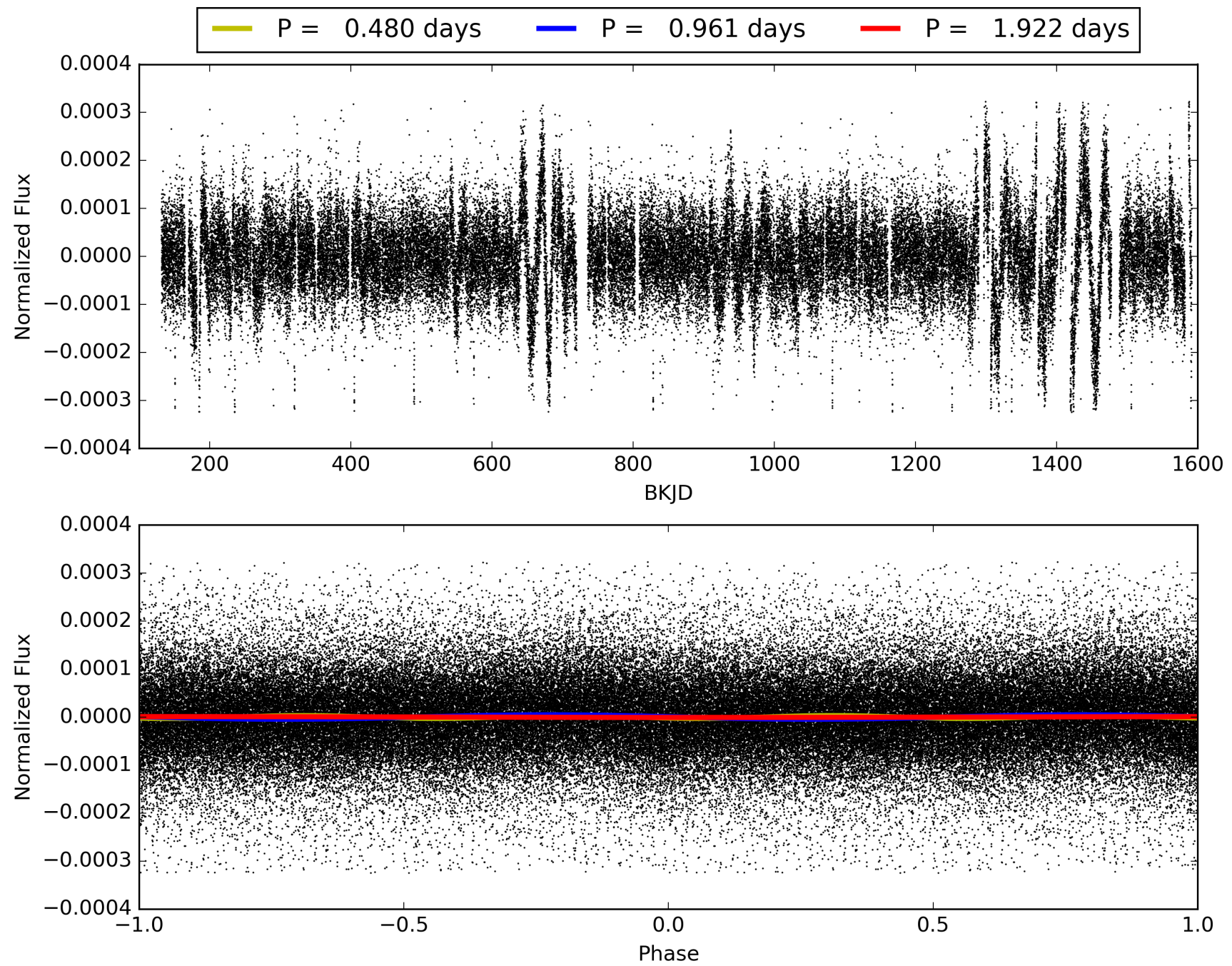
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:18:52 Z

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

TCE 008056665-03, PDC Light Curves

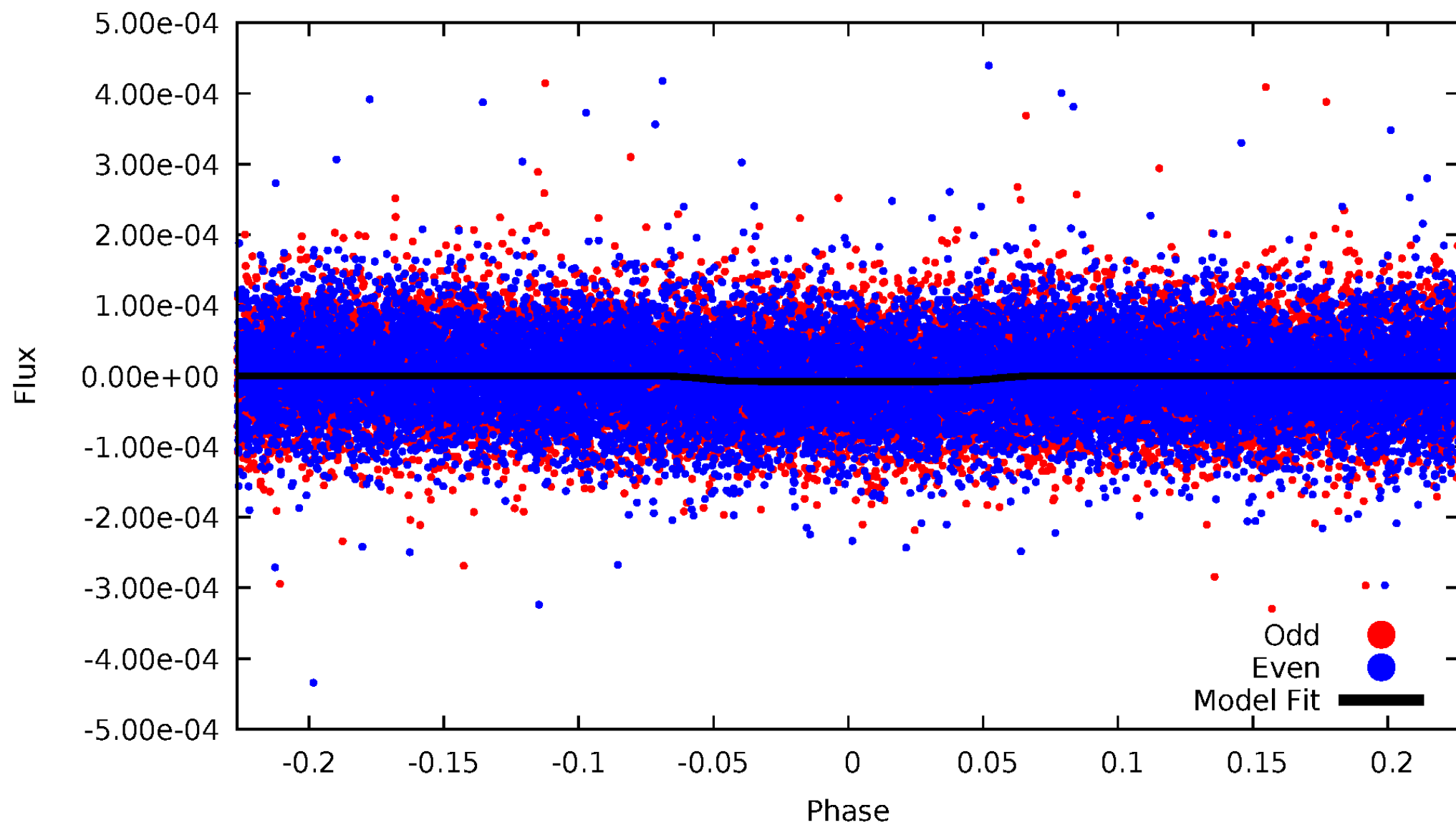


TCE 008056665-03



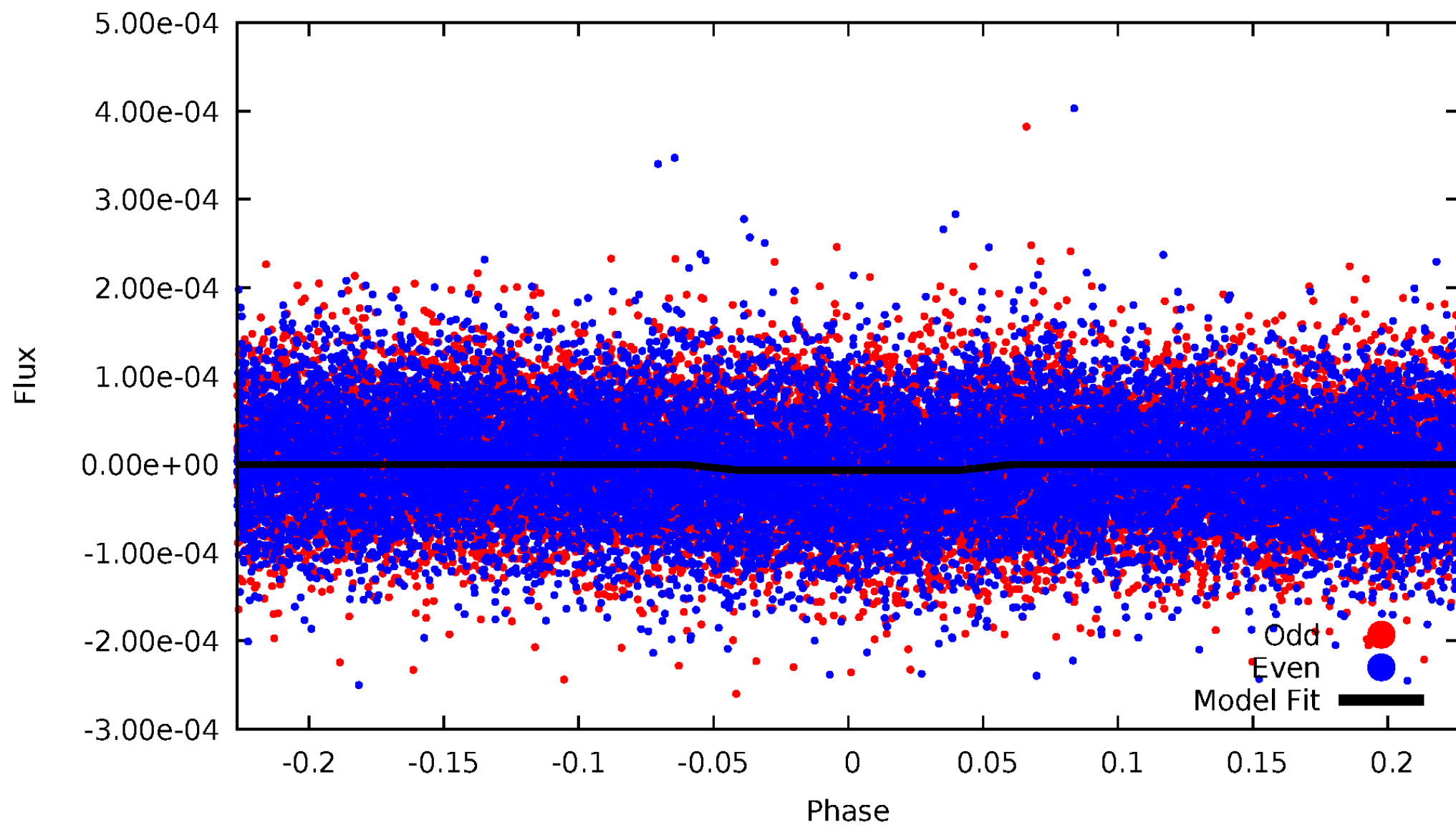
DV Odd/Even

TCE 008056665-03

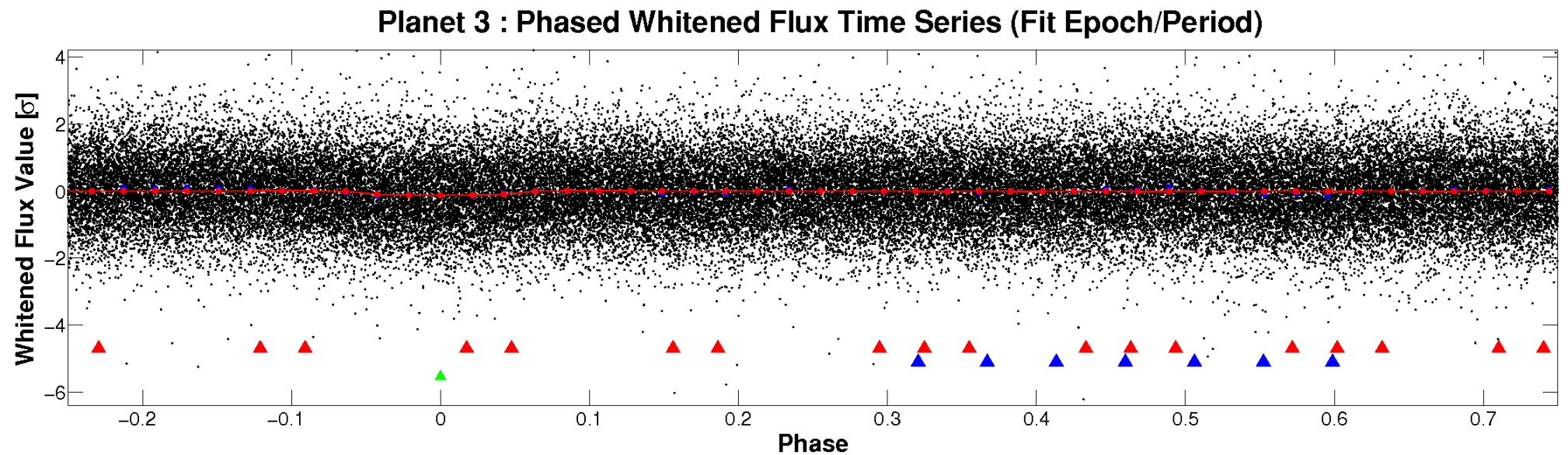
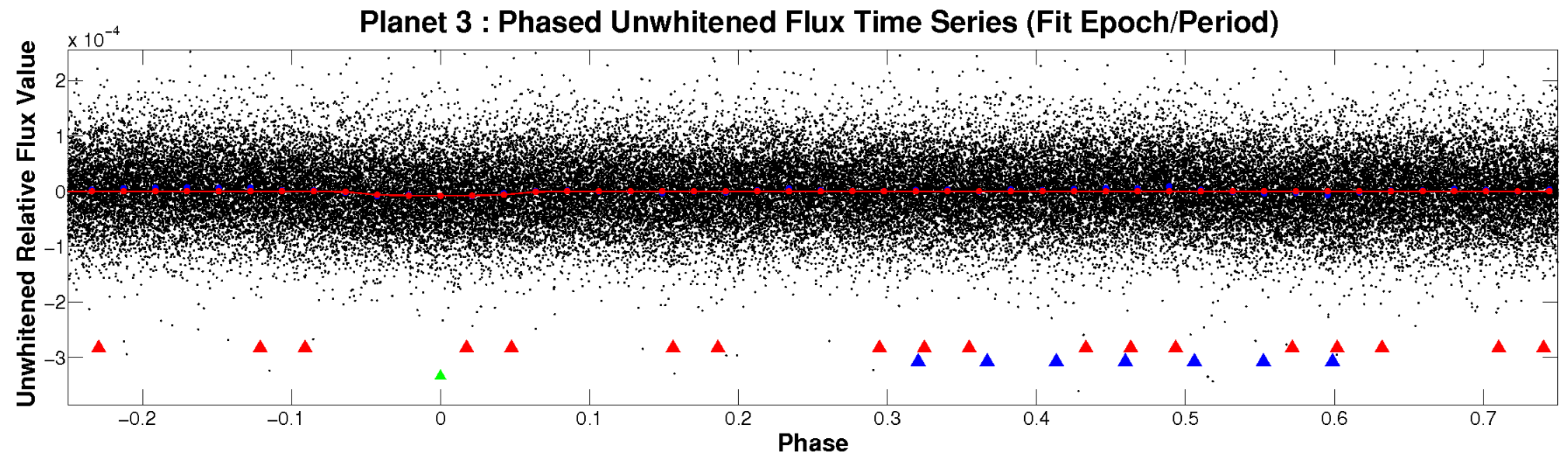


ALT Odd/Even

TCE 008056665-03

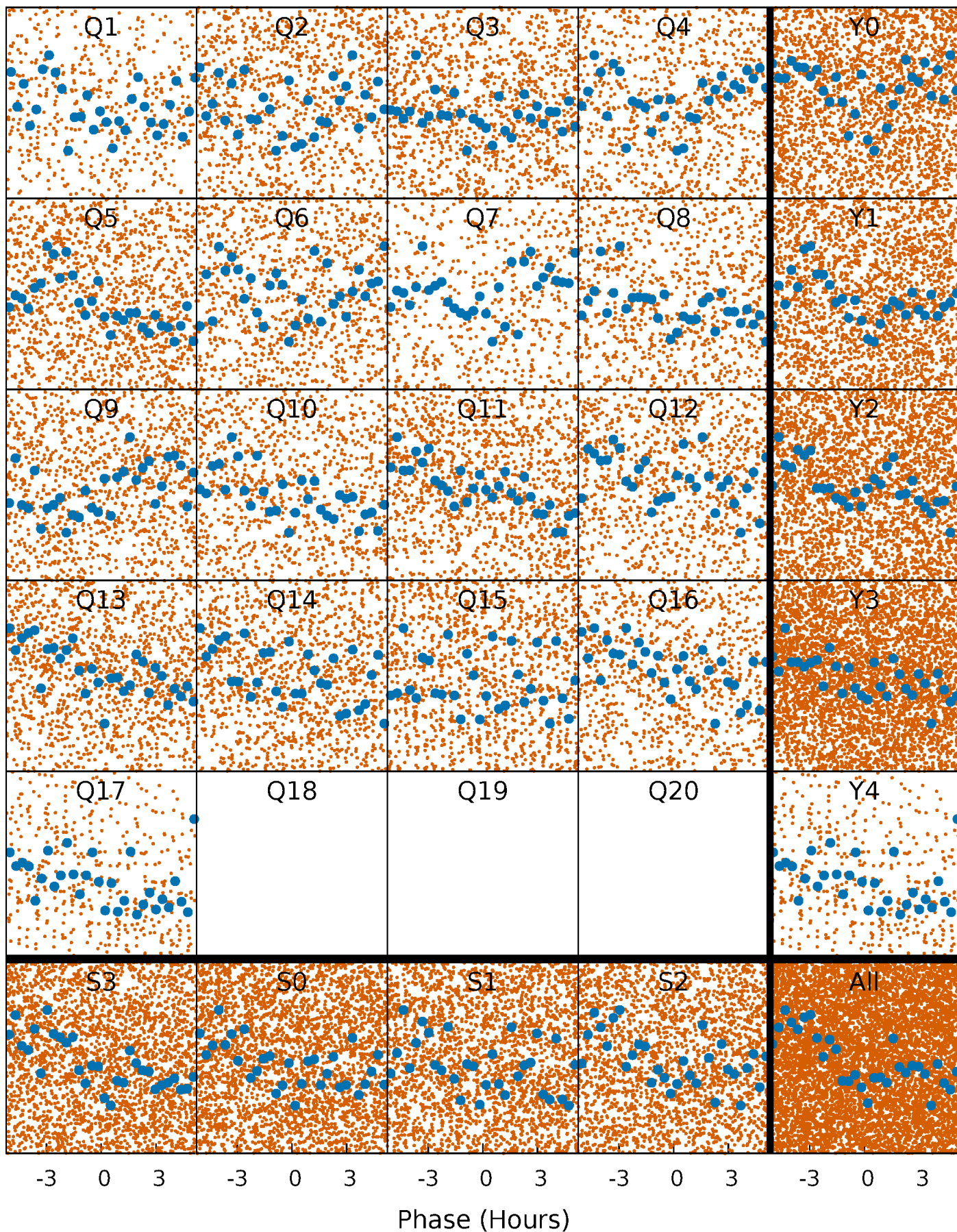


Non-Whitened Vs. Whitened Light Curve



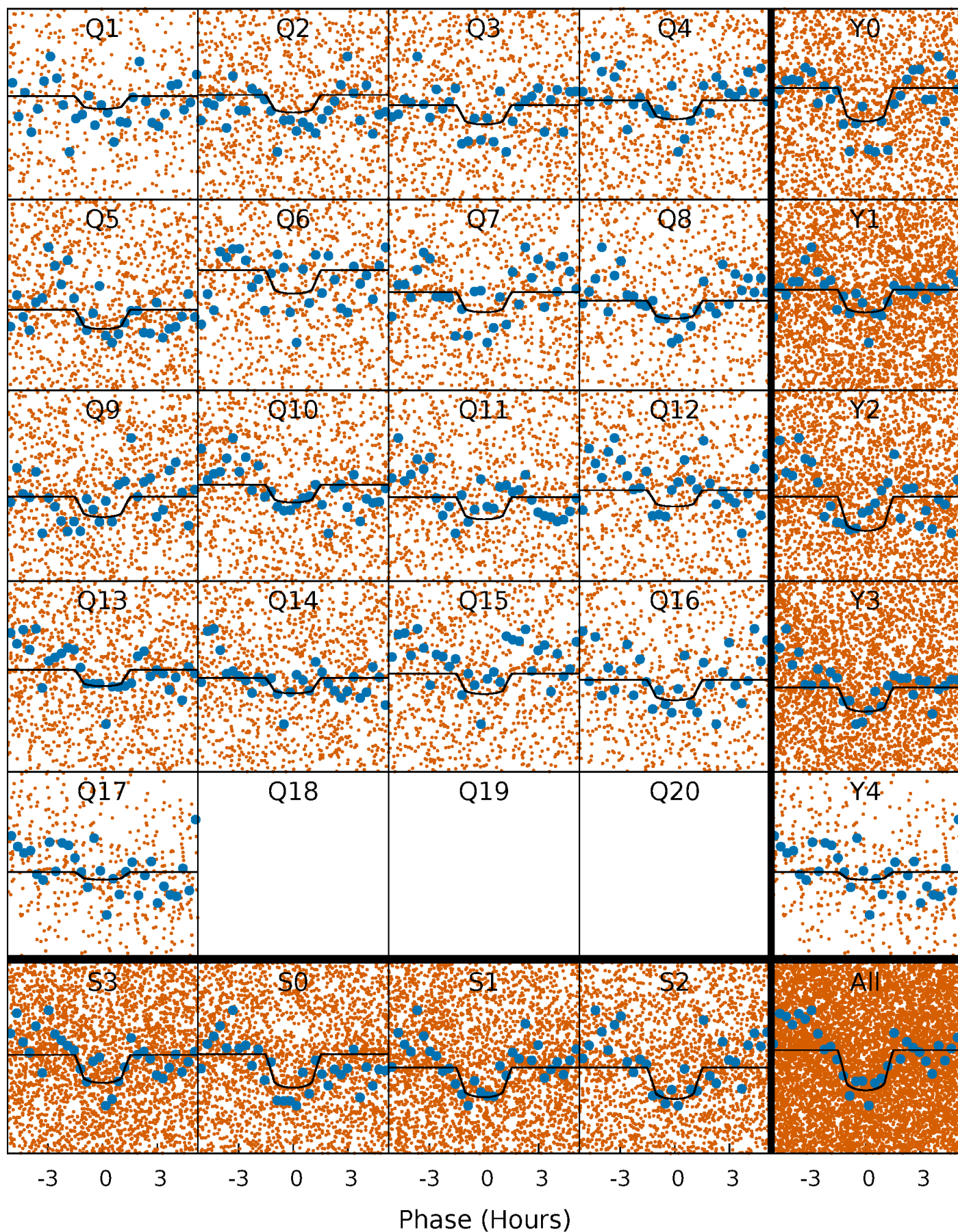
PDC Quarter-Phased Transit Curves

TCE 008056665-03 P= 0.960847 Days $T_0=131.976215$ (BKJD)



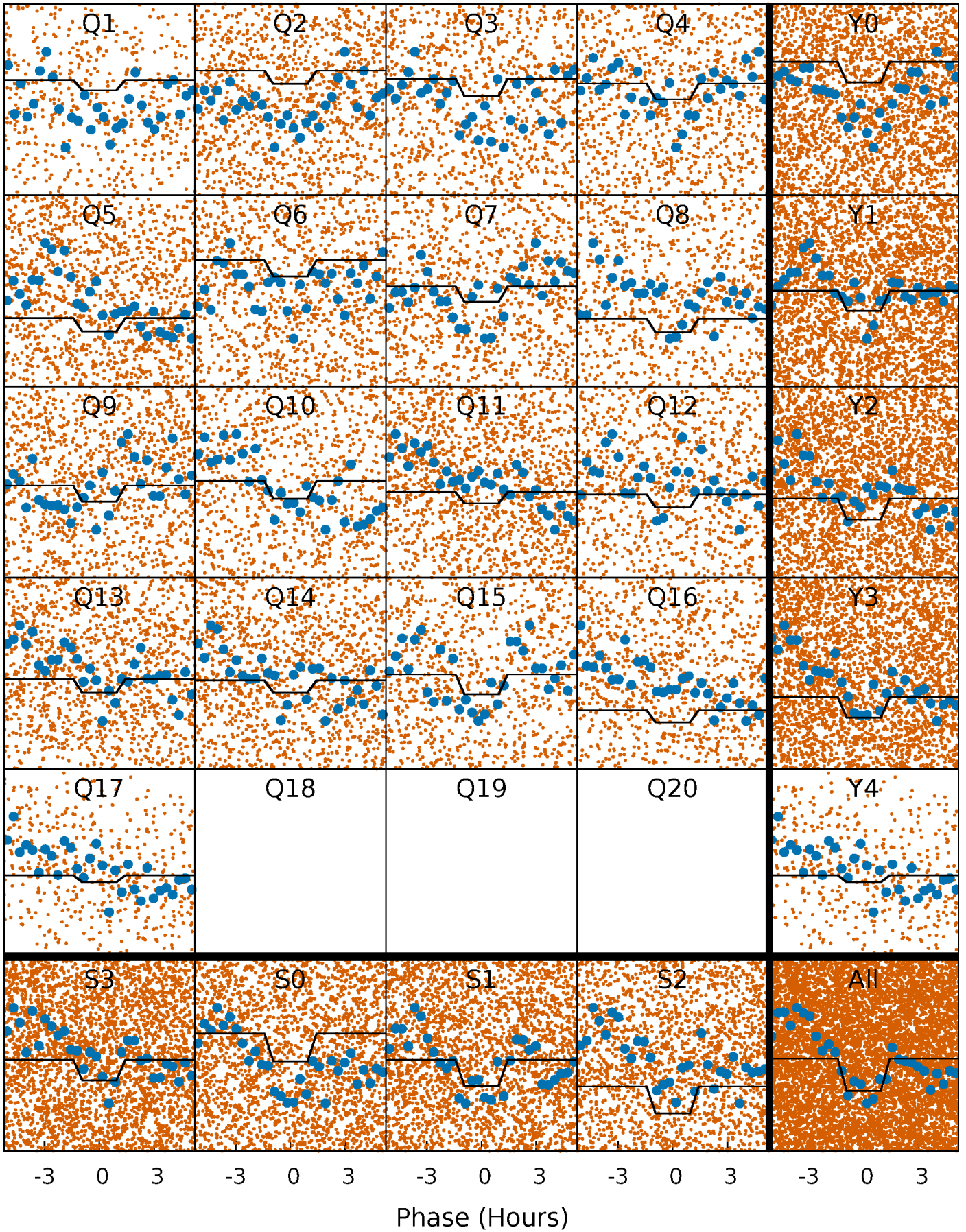
DV Quarter-Phased Transit Curves

TCE 008056665-03 $P = 0.960847$ Days $T_0 = 131.976215$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

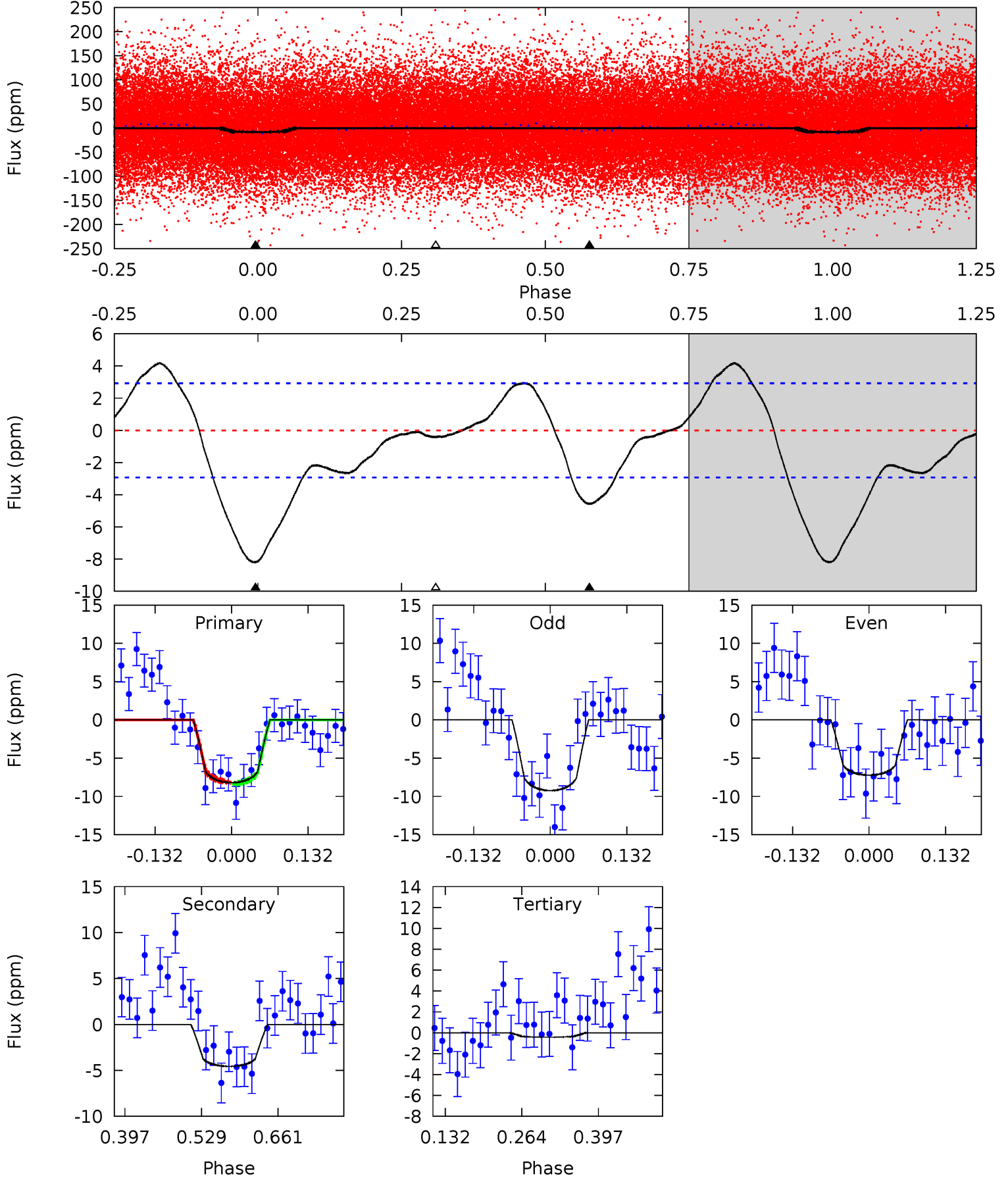
TCE 008056665-03 P= 0.960840 Days $T_0=131.978414$ (BKJD)



DV Model-Shift Uniqueness Test

008056665-03, P = 0.960847 Days, E = 131.015368 Days

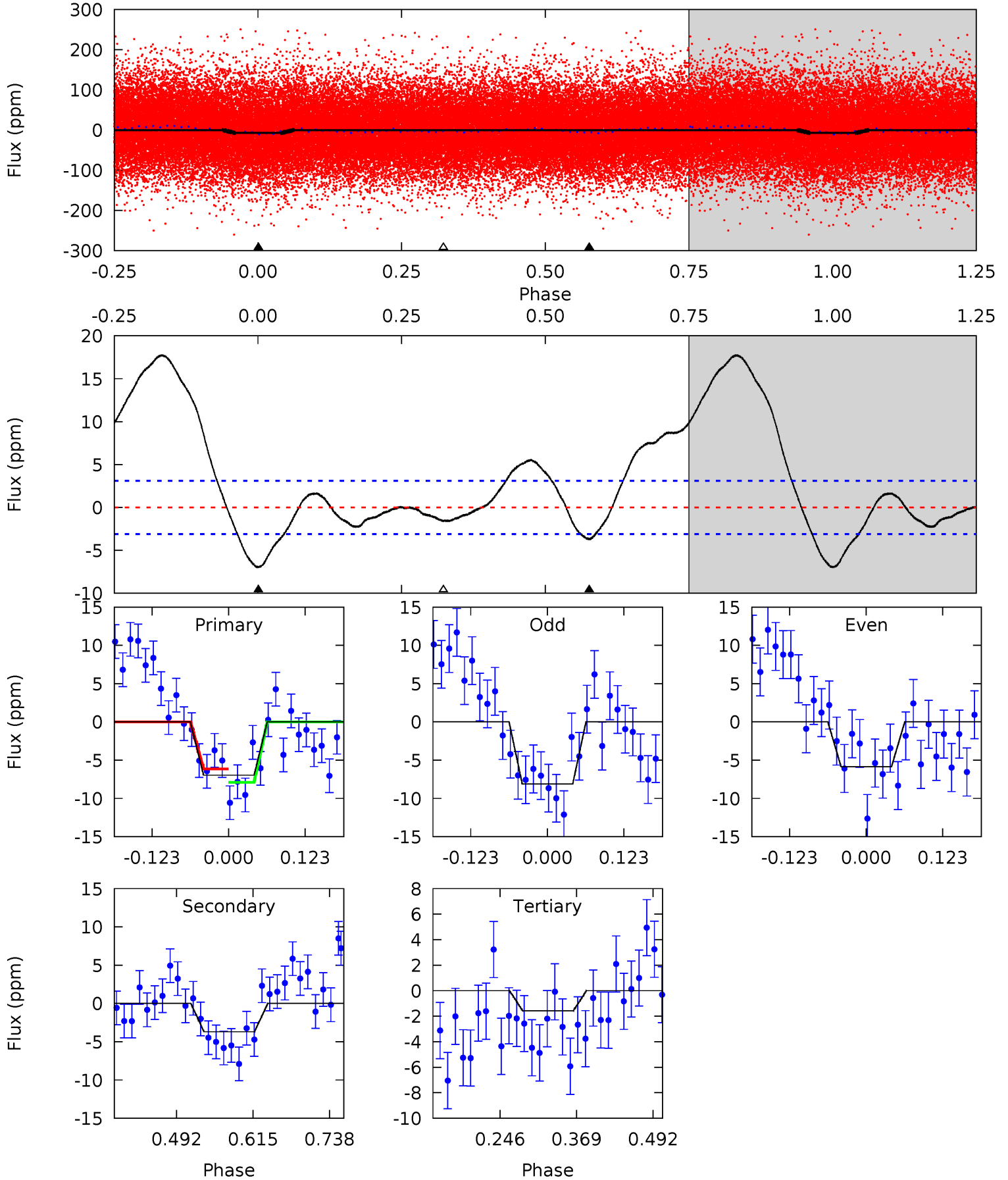
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	7.03	0.65	0	4.51	1.51	2.87	12.0	12.6	6.38	7.03	1.55	1.06	0.34	0.16



Alt Model-Shift Uniqueness Test

008056665-03, P = 0.960840 Days, E = 131.017574 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	5.39	2.31	0	4.52	1.54	10.0	7.83	10.1	3.08	5.39	1.66	0.91	0.72	1.27



Stellar Parameters For KIC 008056665

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6688^{+120}_{-147}	$4.062^{+0.174}_{-0.116}$	$-0.200^{+0.150}_{-0.150}$	$1.790^{+0.311}_{-0.415}$	$1.353^{+0.096}_{-0.178}$	$0.332^{+0.294}_{-0.115}$
	+2%/-2%	+4%/-3%	+75%/-75%	+17%/-23%	+7%/-13%	+89%/-34%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 008056665-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5 ± 1	$0.58^{+0.12}_{-0.11}$	3777^{+193}_{-199}	5495^{+566}_{-450}	$3.333^{+1.809}_{-1.078}$
Alt.	-4 ± 1	$0.49^{+0.11}_{-0.11}$	3783^{+188}_{-223}	5653^{+773}_{-552}	$3.669^{+2.703}_{-1.358}$

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

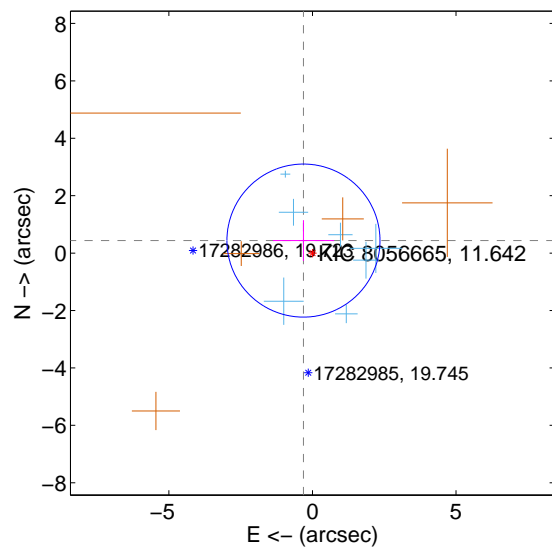
Supplemental centroid analysis for 008056665-03. **Kepler magnitude: 11.64.** Transit SNR 8.75

There are 7 quarters with good PRF difference image offsets

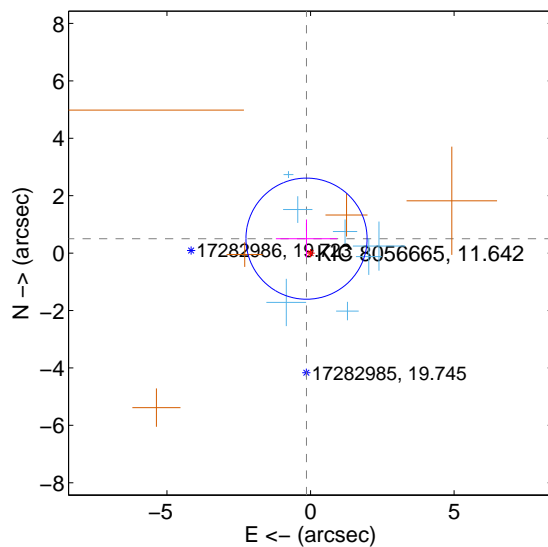
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.537 ± 0.889	0.60	0.313 ± 1.063	0.436 ± 0.711
PRF-fit source offset from KIC position	0.522 ± 0.703	0.74	0.140 ± 1.068	0.503 ± 0.667
photometric centroid source offset	2.45 ± 1.53	1.61	-1.40 ± 1.78	-2.01 ± 1.38

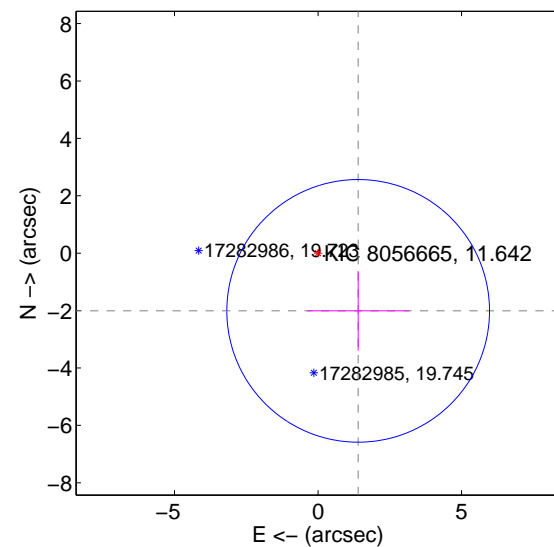
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

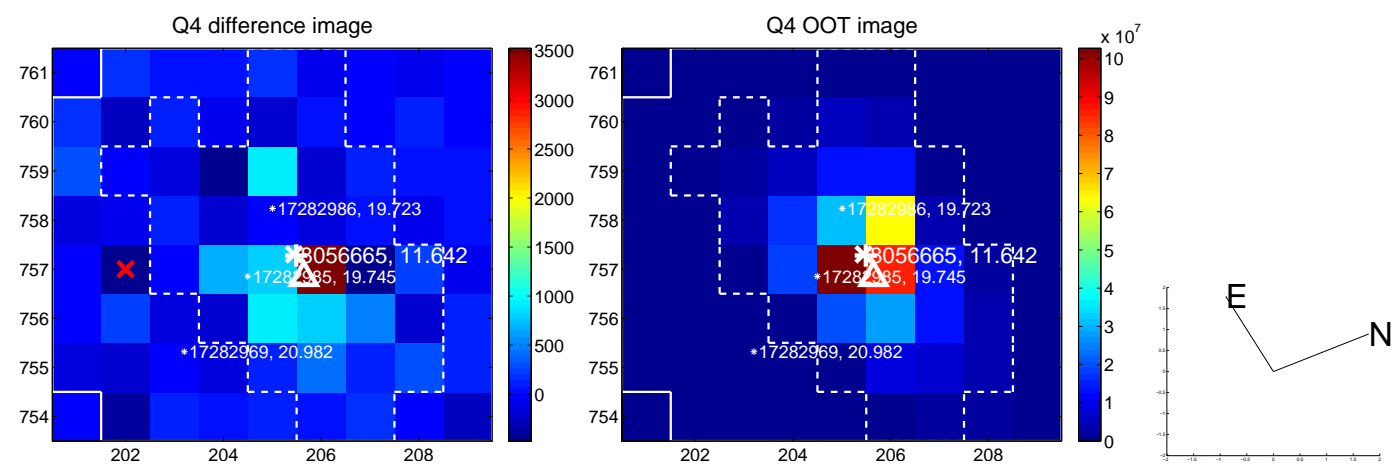
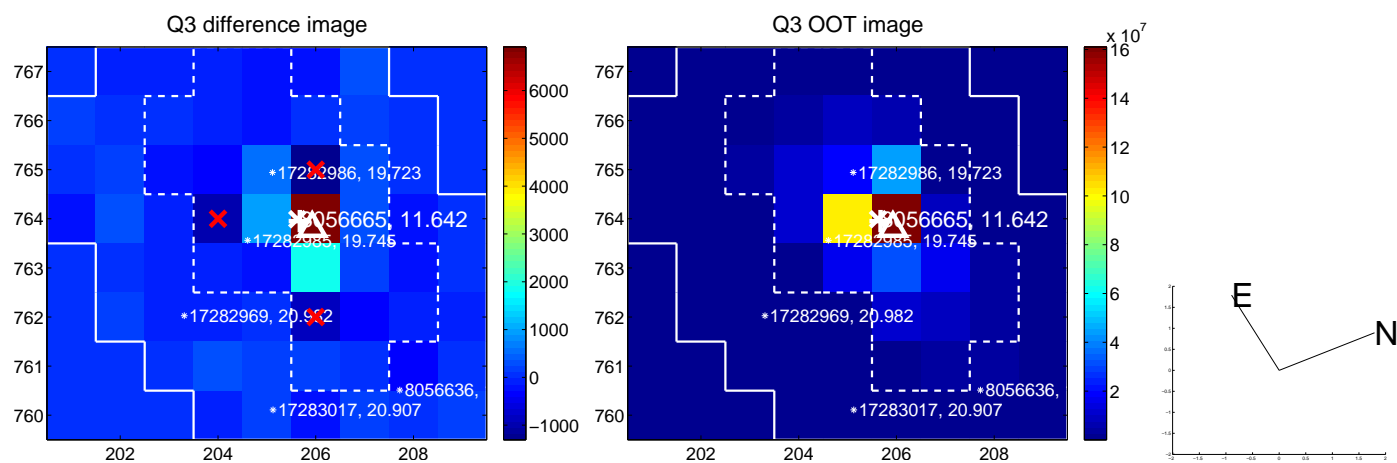
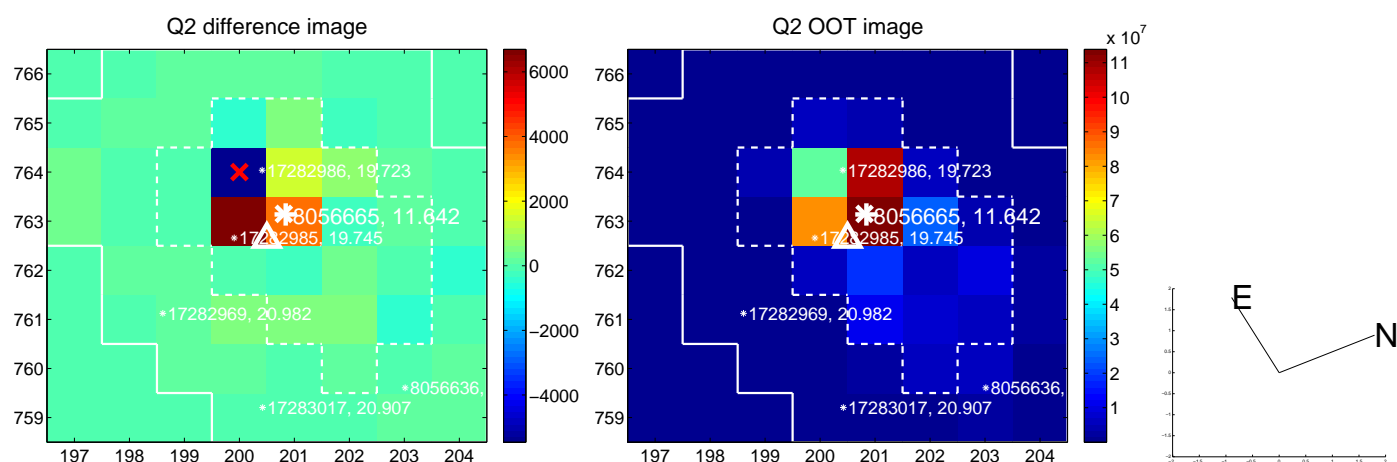
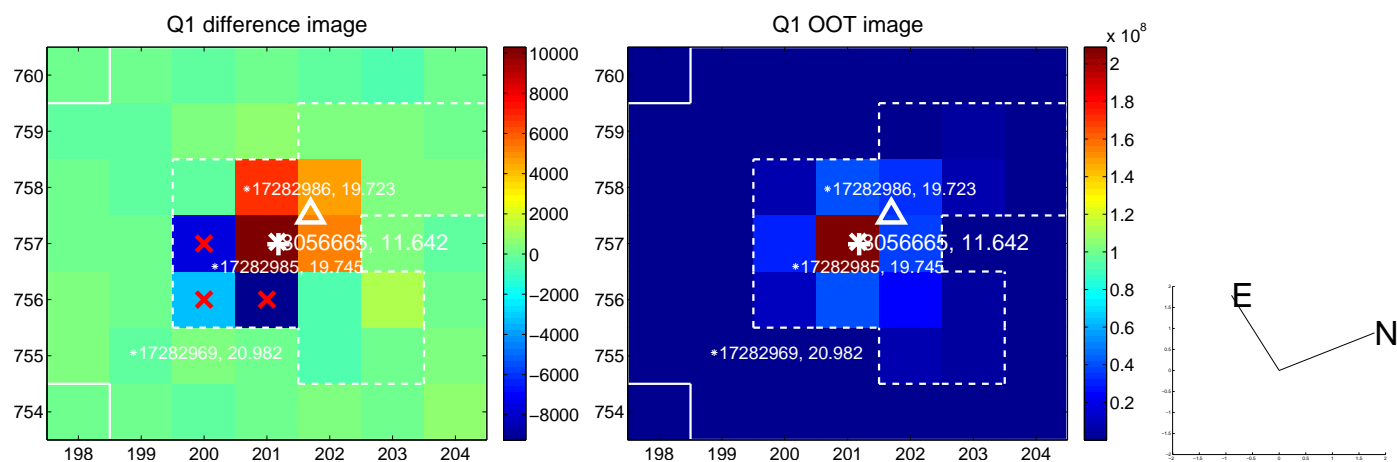


offset from photometric centroids

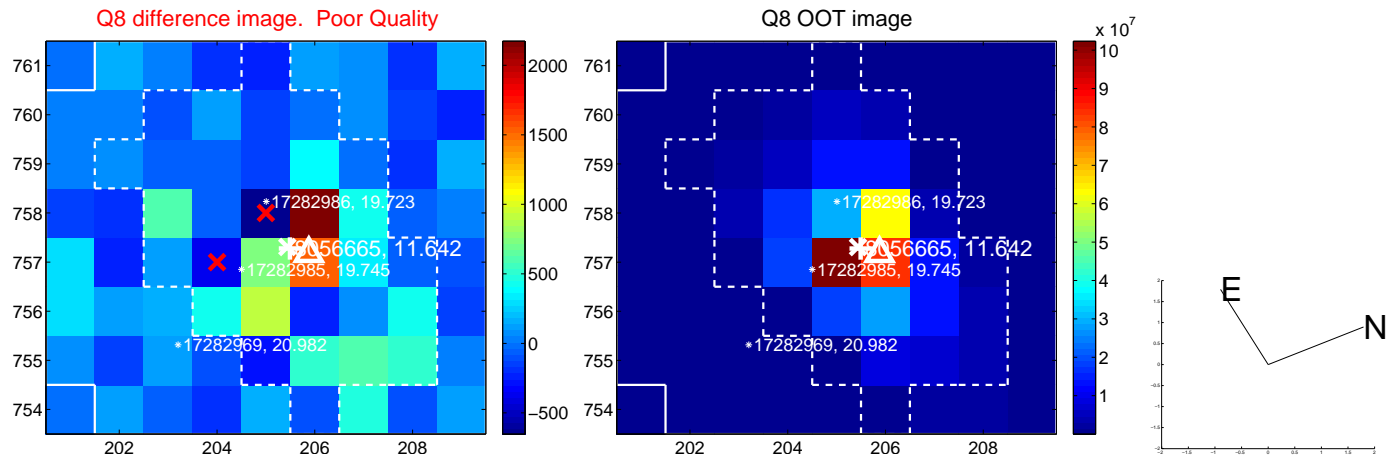
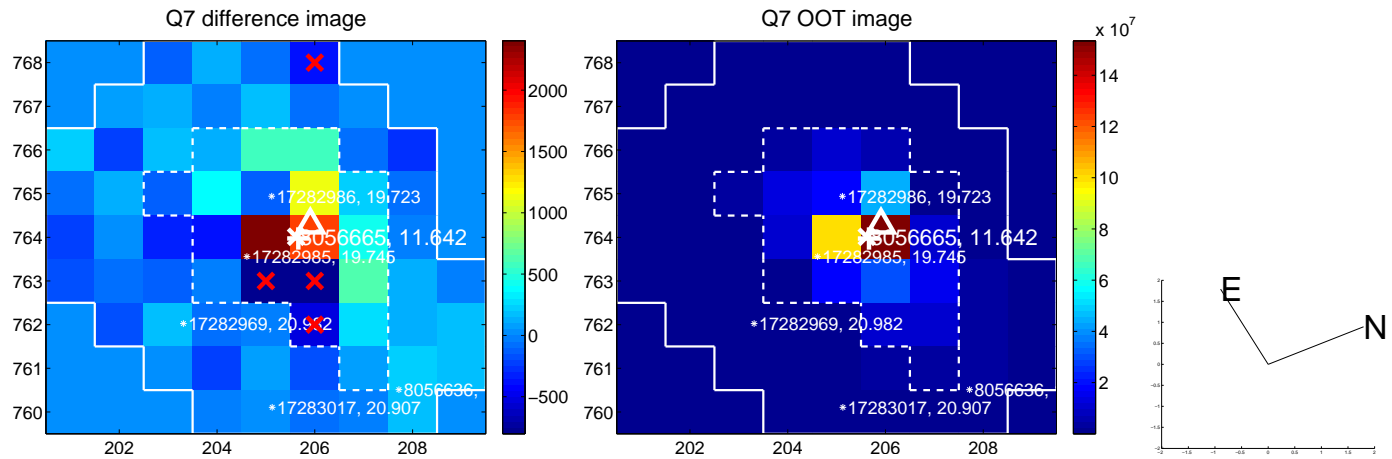
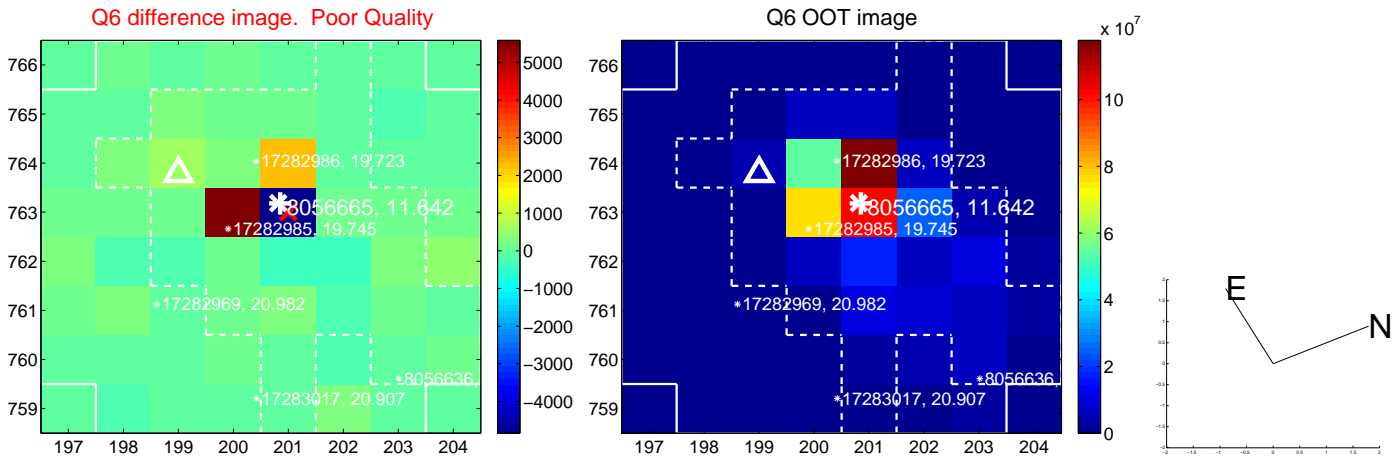
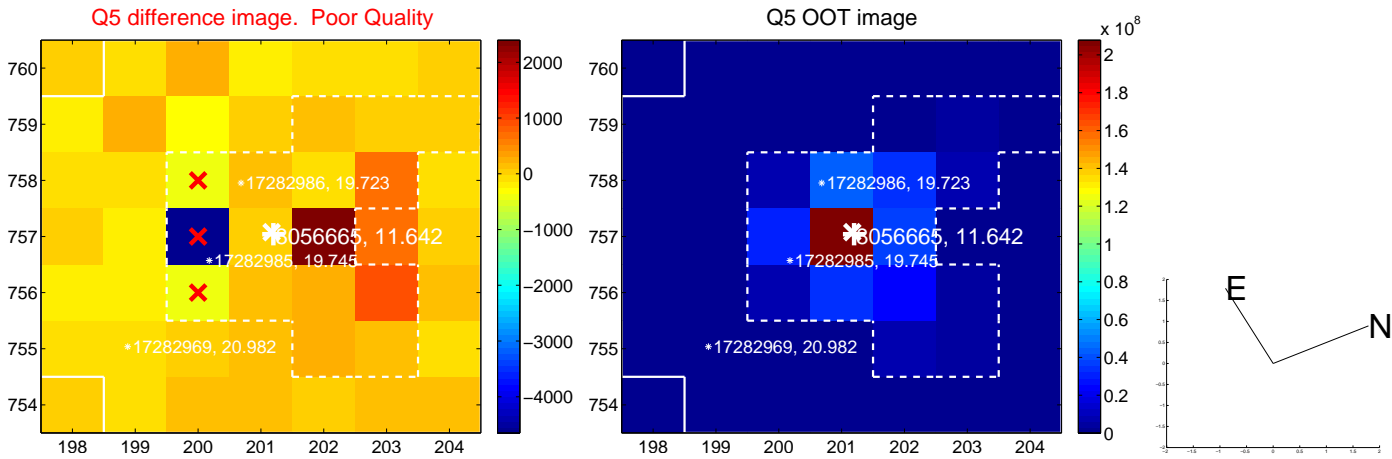


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

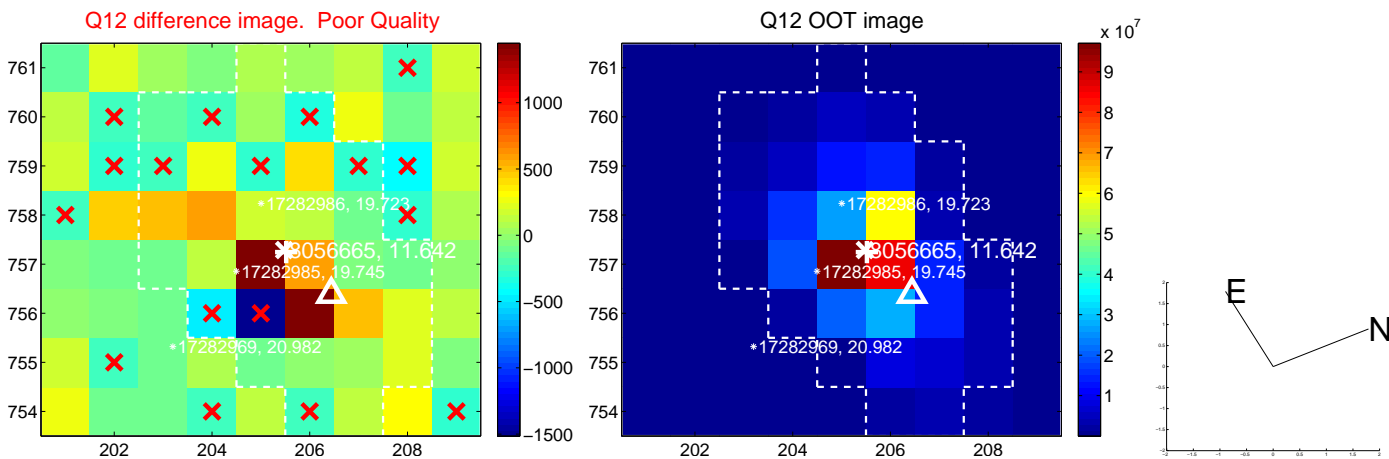
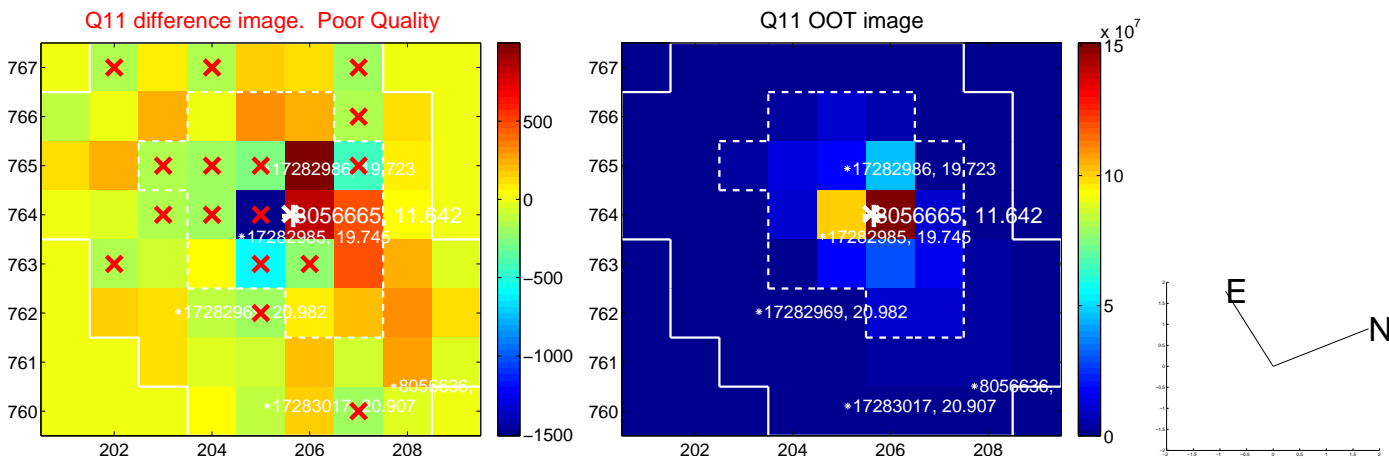
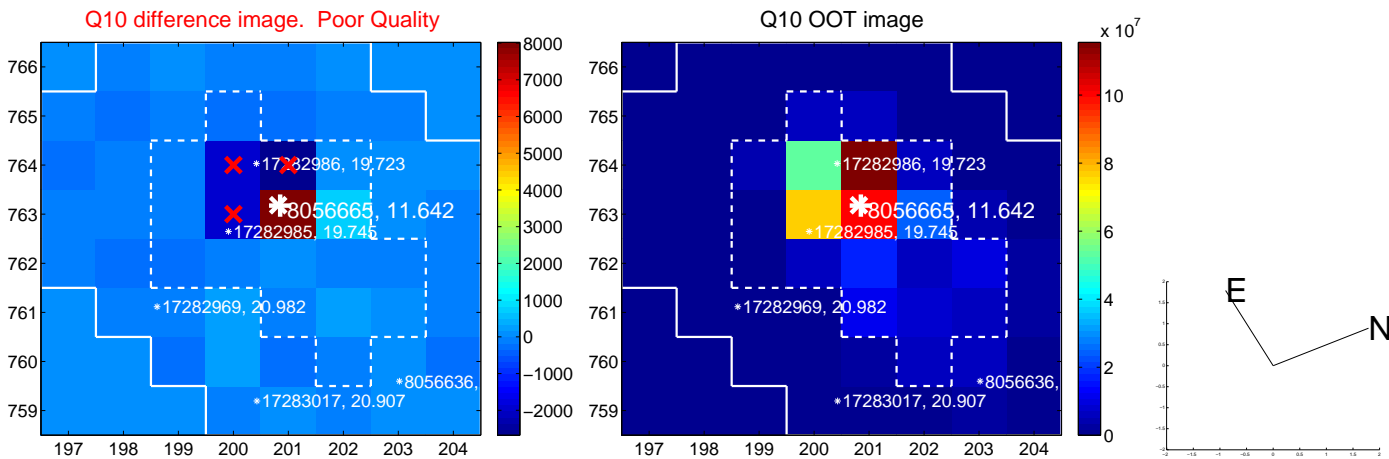
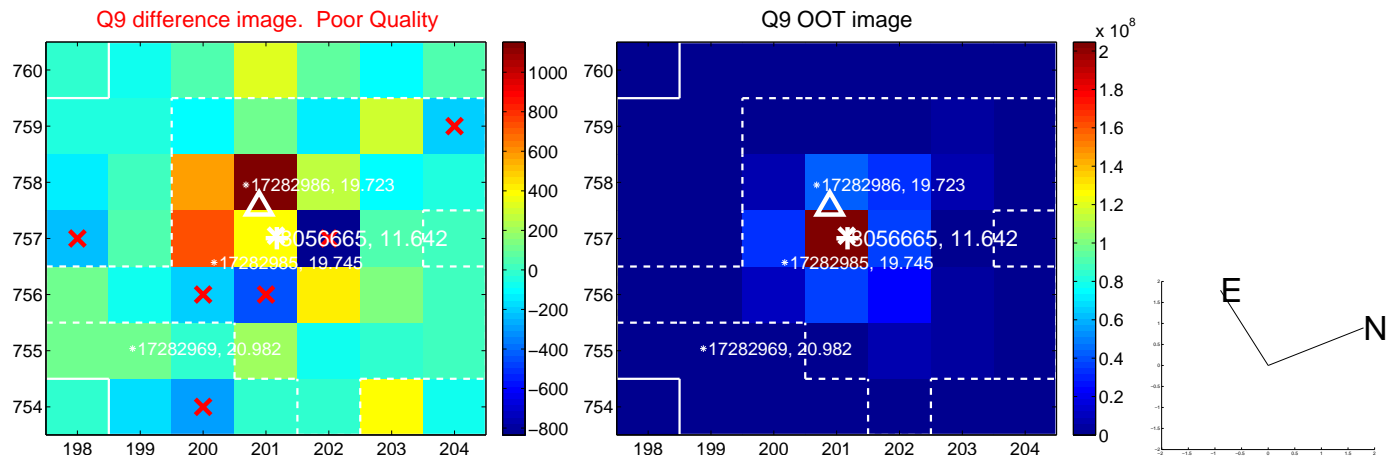
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



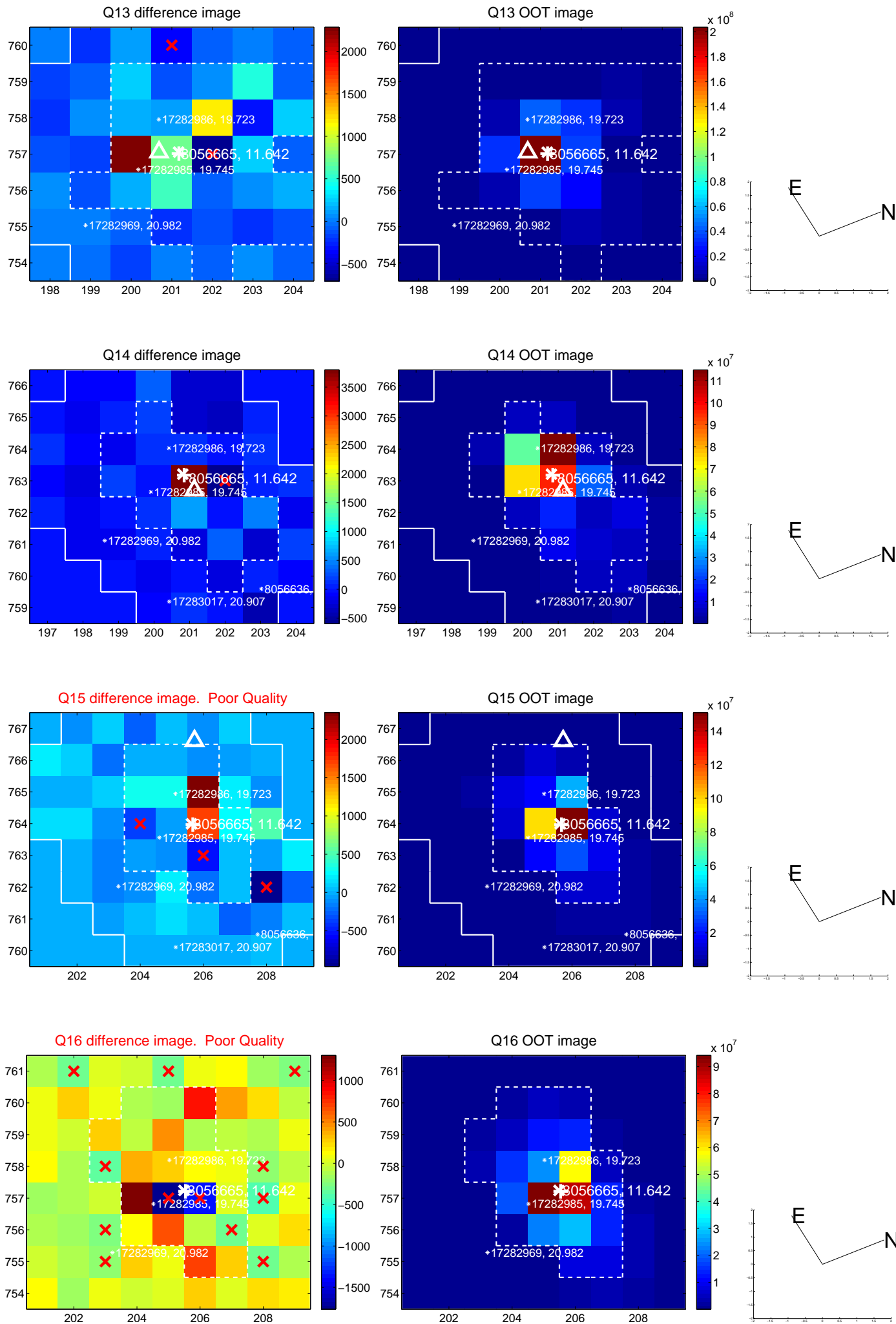
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



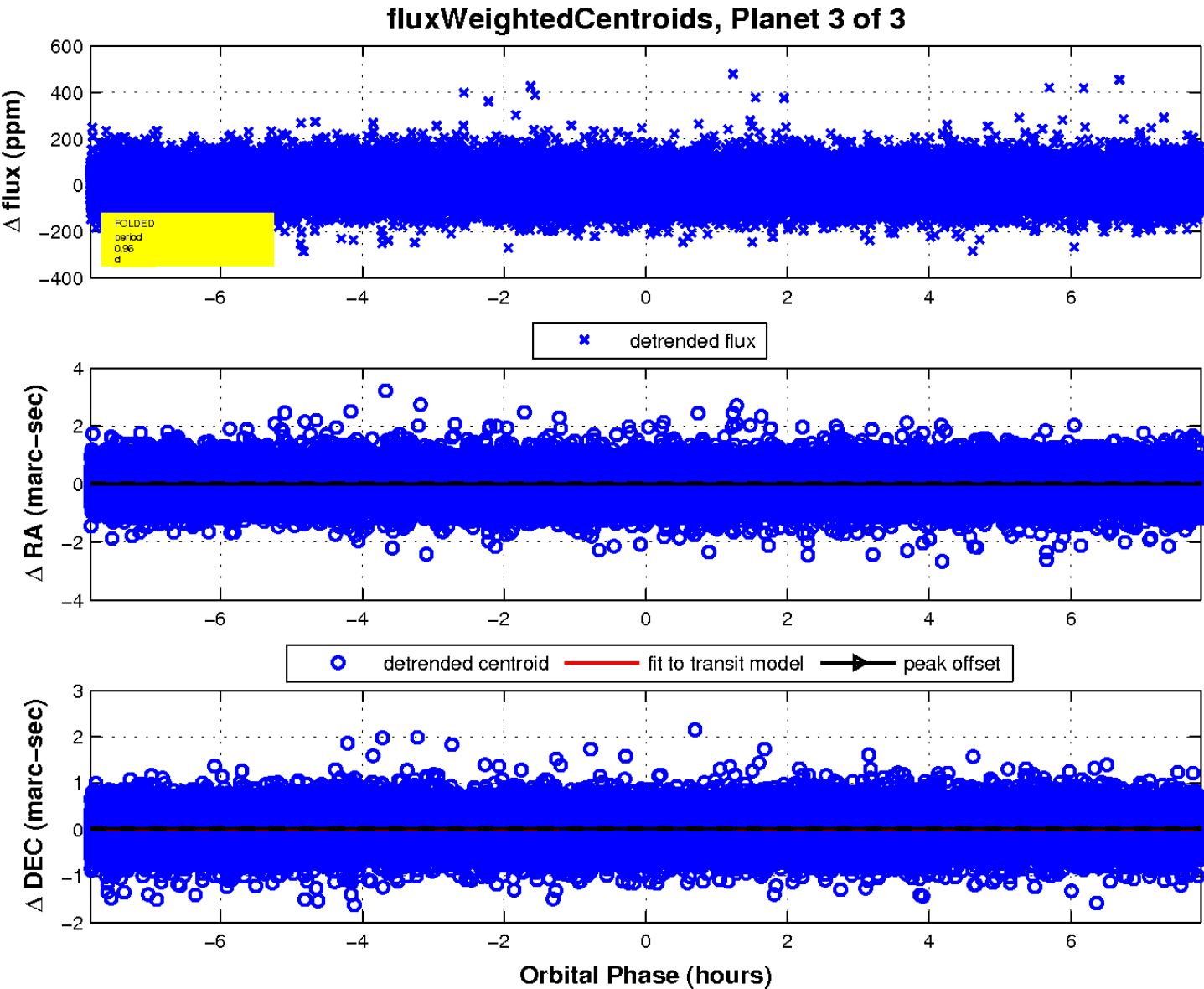
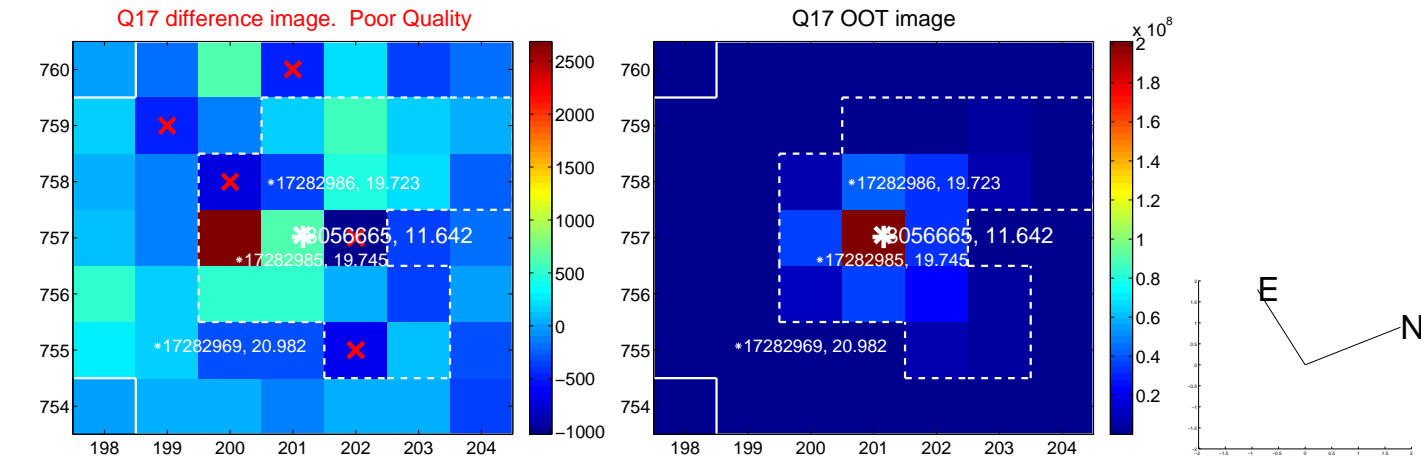
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

