

KIC 006387311

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})
006387311-01	OBS	No	1.587243	132.929804	16.8	6.308	8.9	5.5	3.36	6190	1.65	16219.46
006387311-02	OBS	No	254.893868	261.748686	368.4	5.783	8.2	7.9	3.36	6190	7.24	18.58
006387311-03	OBS	No	125.976951	150.687442	198.6	8.245	7.8	5.5	3.36	6190	5.22	47.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006387311-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006387311-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT
006387311-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST

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

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

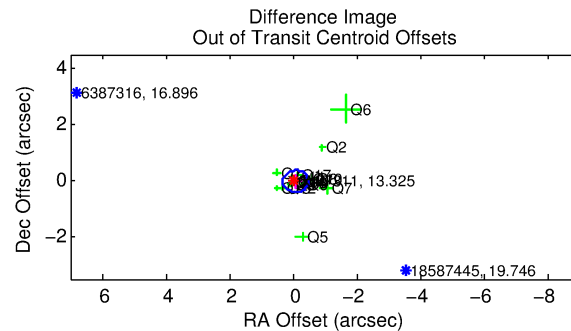
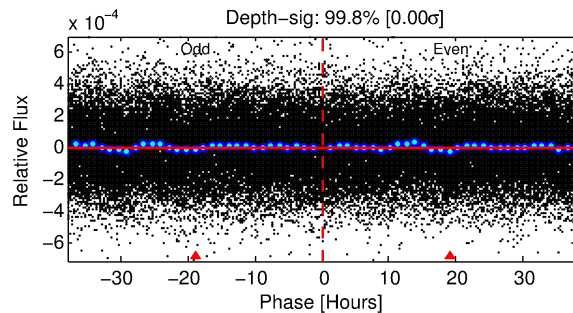
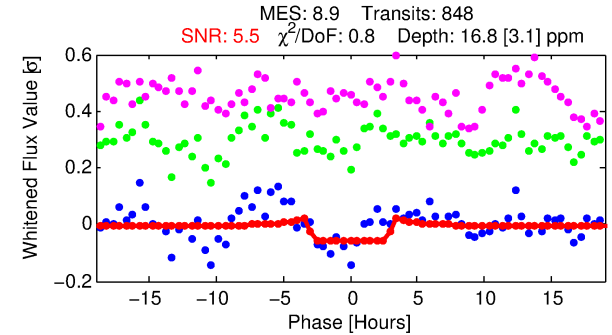
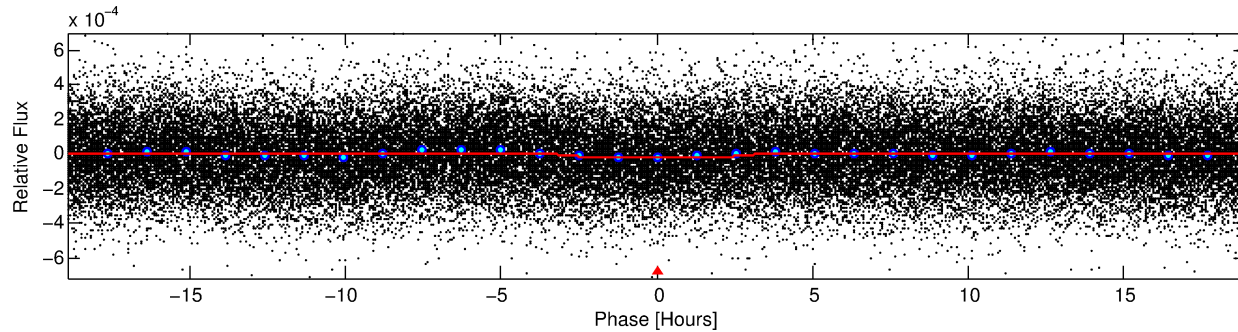
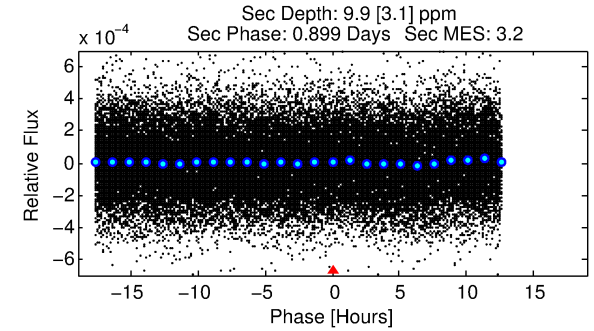
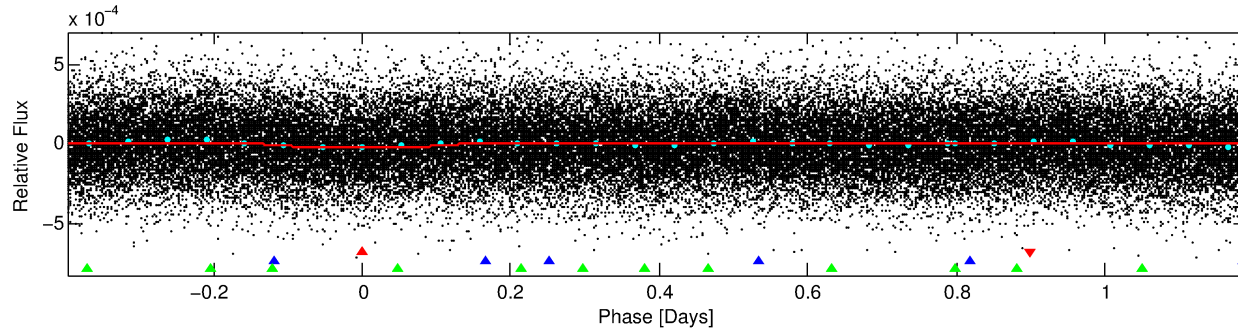
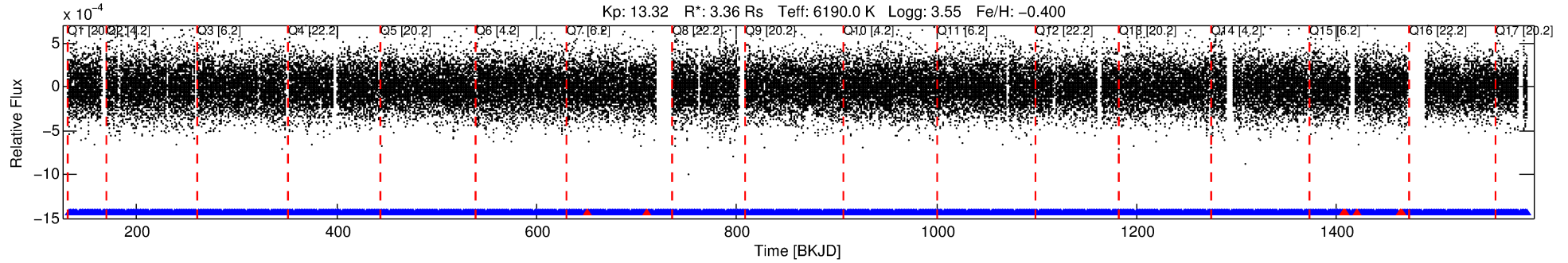
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006387311-01

No Significant Match Found

DV One-Page Summary

KIC: 6387311 Candidate: 1 of 3 Period: 1.587 d



DV Fit Results:

Period = 1.58724 [0.00003] d
Epoch = 132.9298 [0.0077] BKJD
Rp/R* = 0.0045 [0.0019]
a/R* = 1.22 [0.99]
b = 0.92 [0.40]
Seff = 16219.46 [10602.04]
Teq = 2878 [470] K
Rp = 1.65 [0.99] Re
a = 0.0303 [0.0121] AU
Ag = 1.84 [2.06] [0.41σ]
Teffp = 5185 [1203] K [1.79σ]

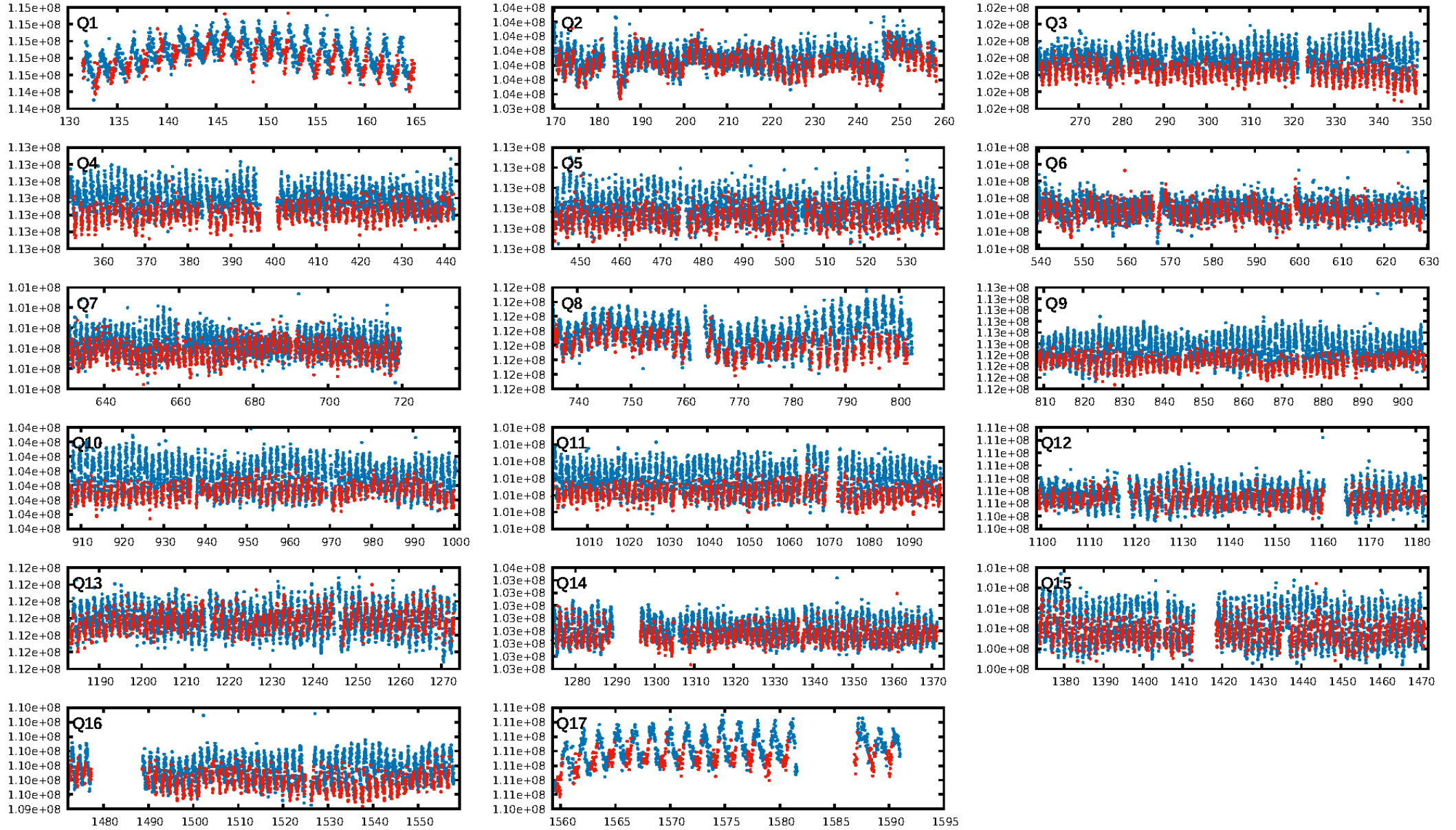
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [287.58σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.85e-14
RollingBand-fgt: 0.99 [803/810]
GhostDiagnostic-chr: 1.985
Centroid-sig: 0.0%
Centroid-so: 4.258 arcsec [2.79σ]
OotOffset-rm: 0.090 arcsec [0.68σ]
KicOffset-rm: 0.072 arcsec [0.51σ]
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]

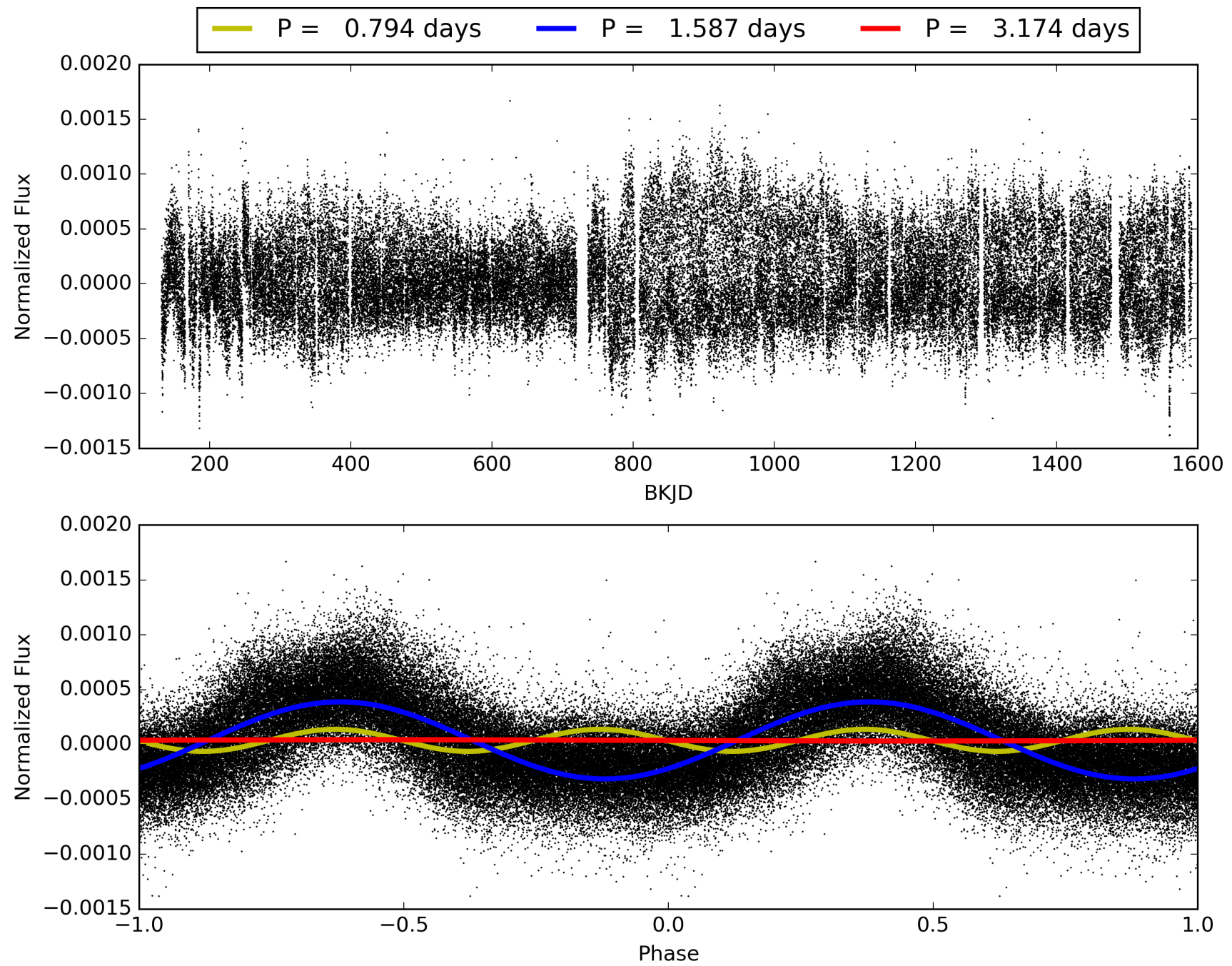
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:05:37 Z

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

TCE 006387311-01, PDC Light Curves

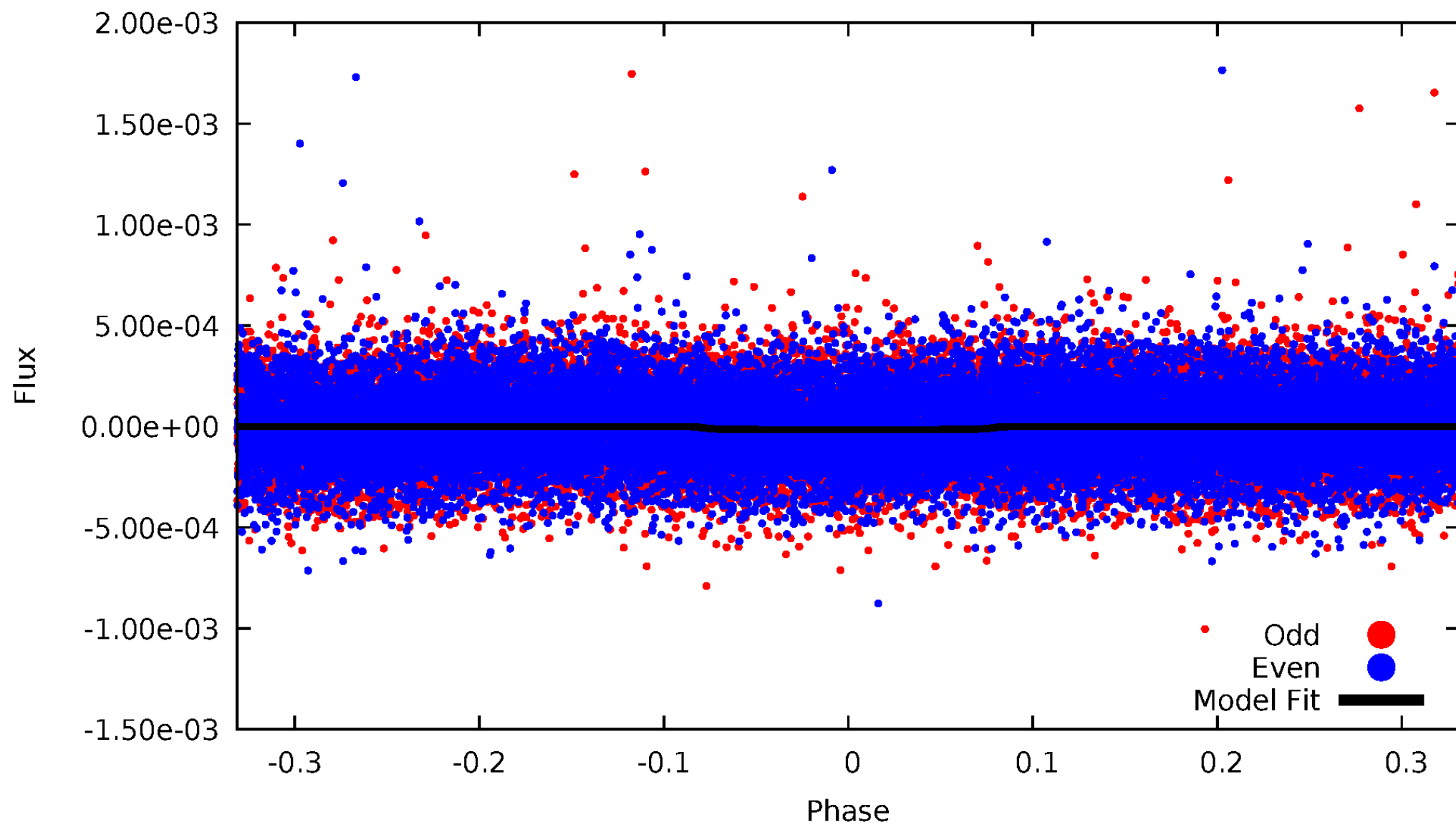


TCE 006387311-01



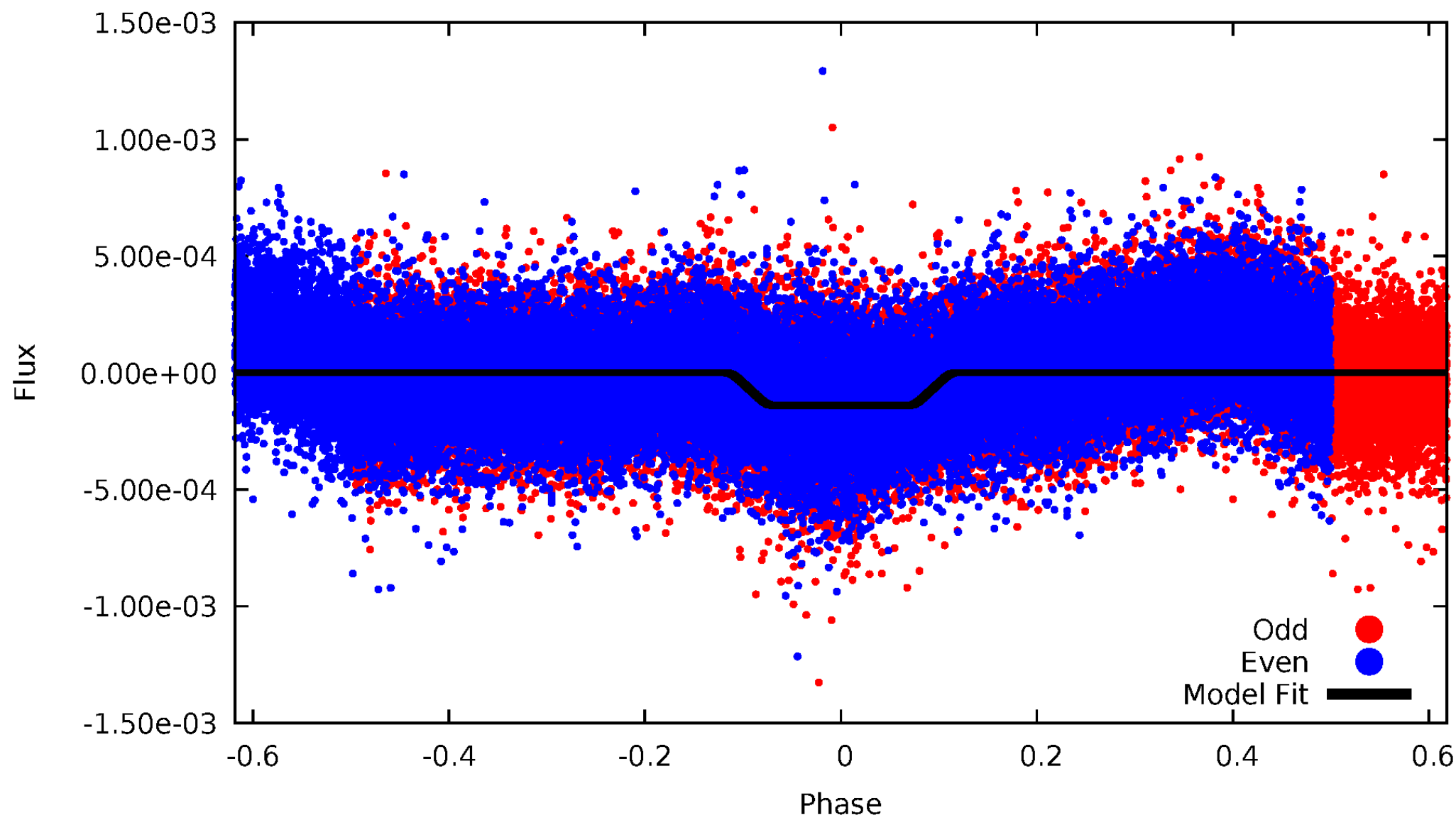
DV Odd/Even

TCE 006387311-01

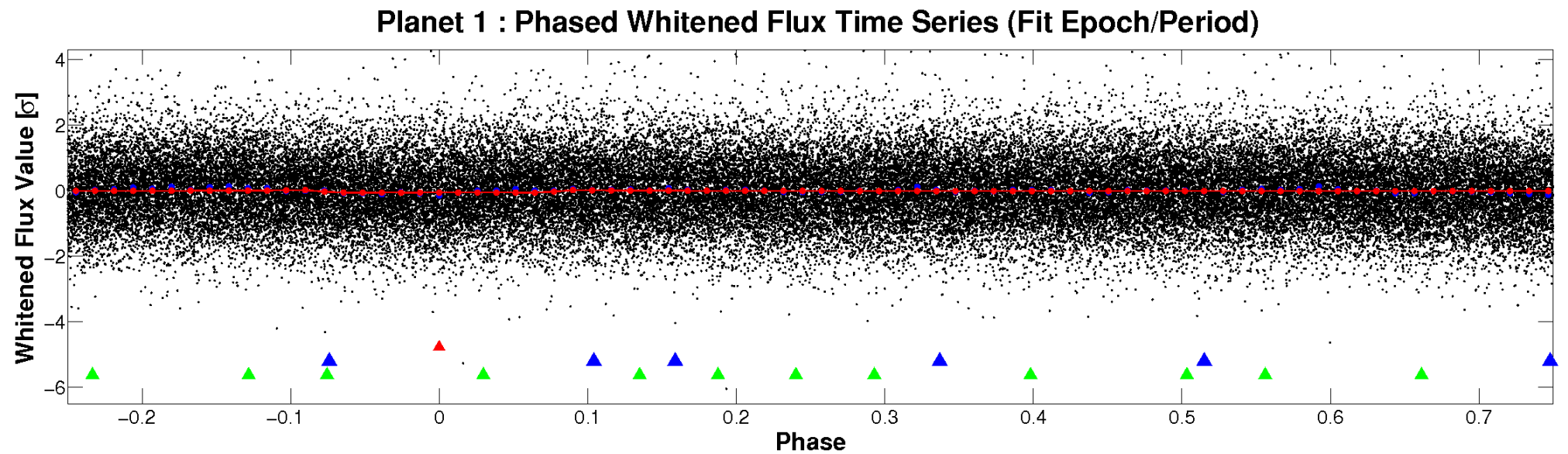
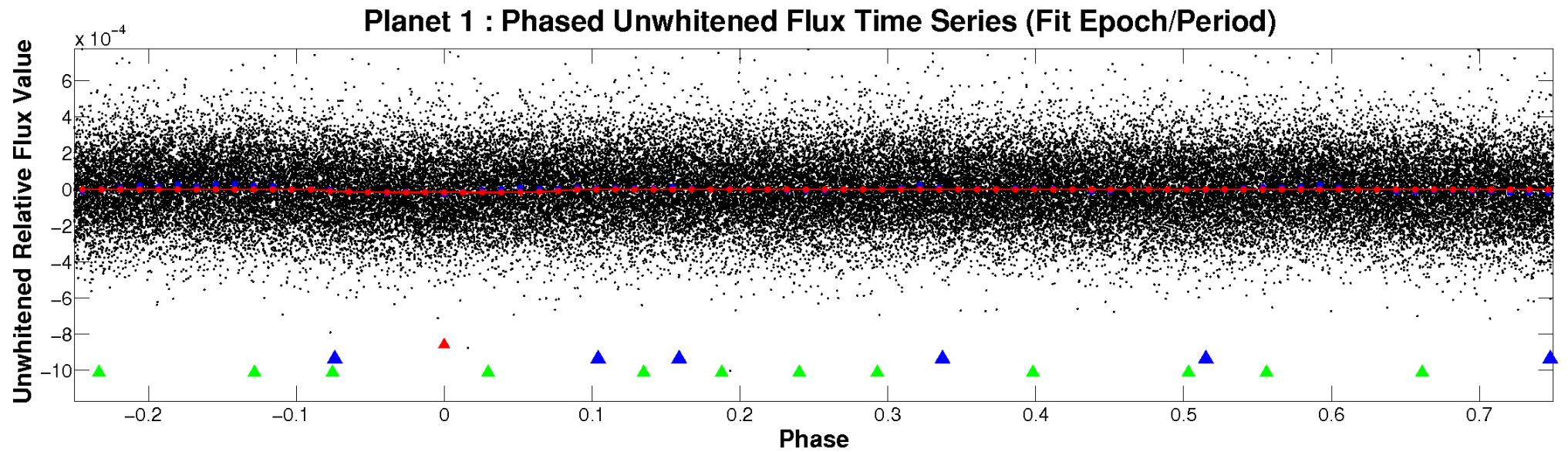


ALT Odd/Even

TCE 006387311-01

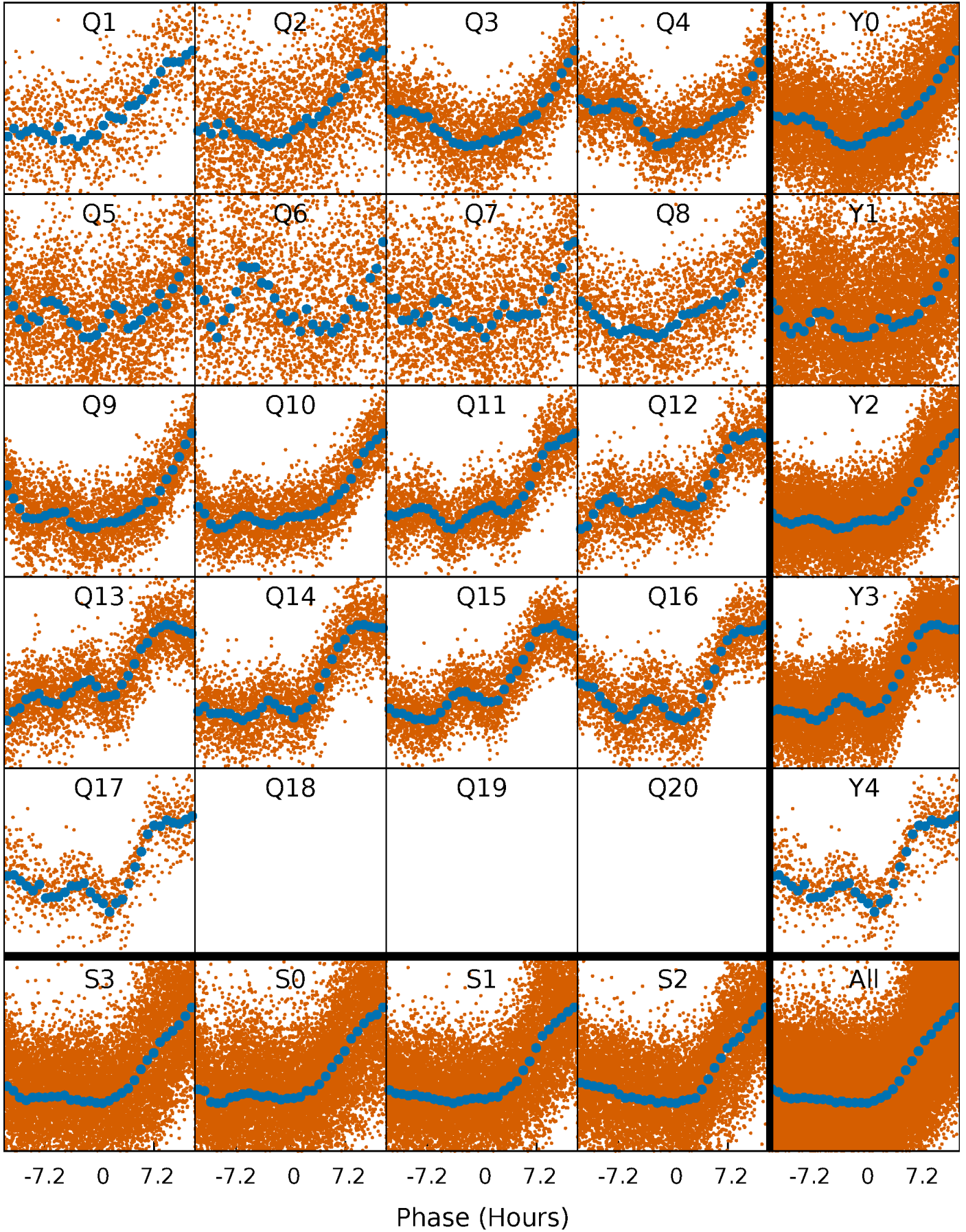


Non-Whitened Vs. Whitened Light Curve



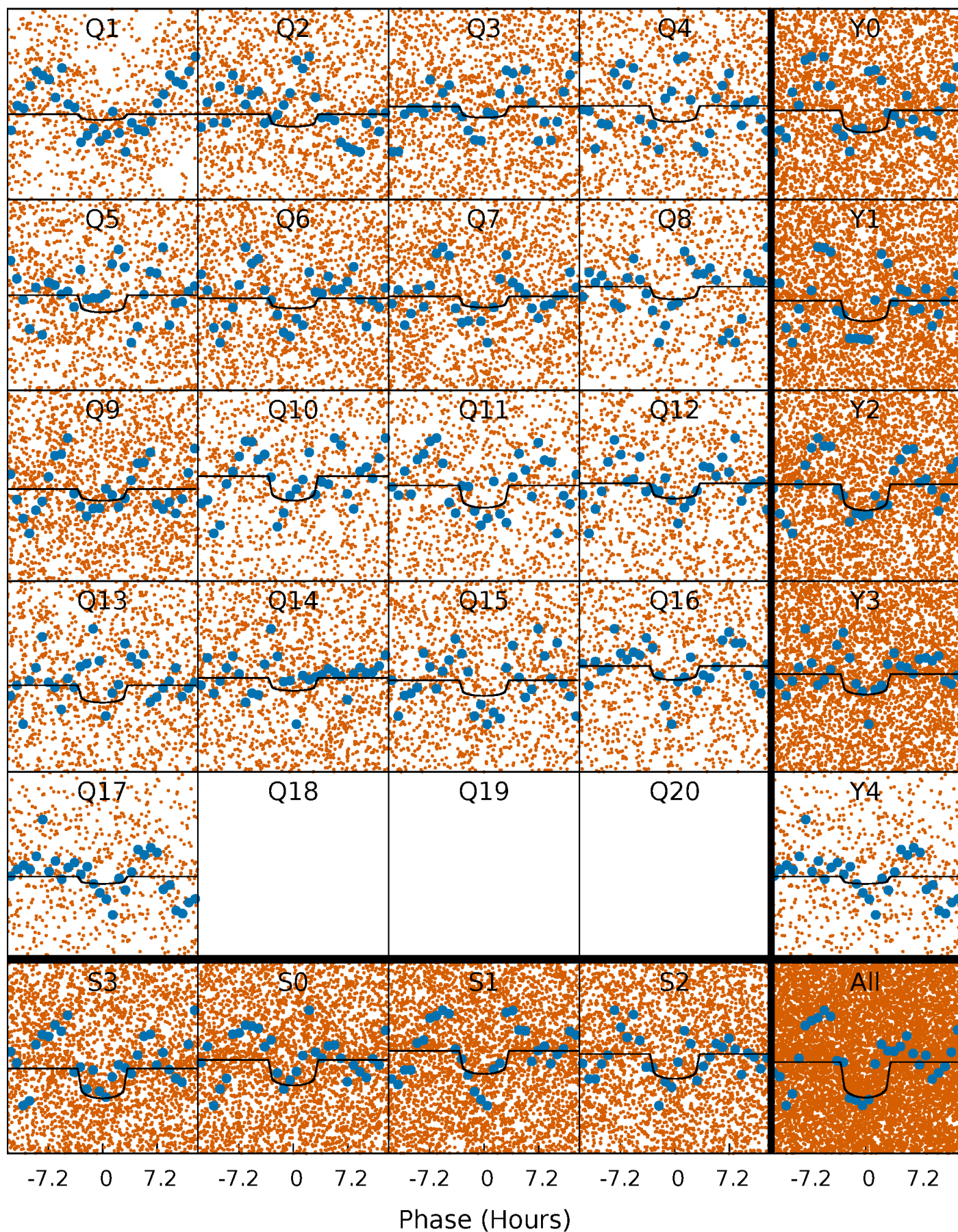
PDC Quarter-Phased Transit Curves

TCE 006387311-01 P= 1.587243 Days $T_0=132.929804$ (BKJD)



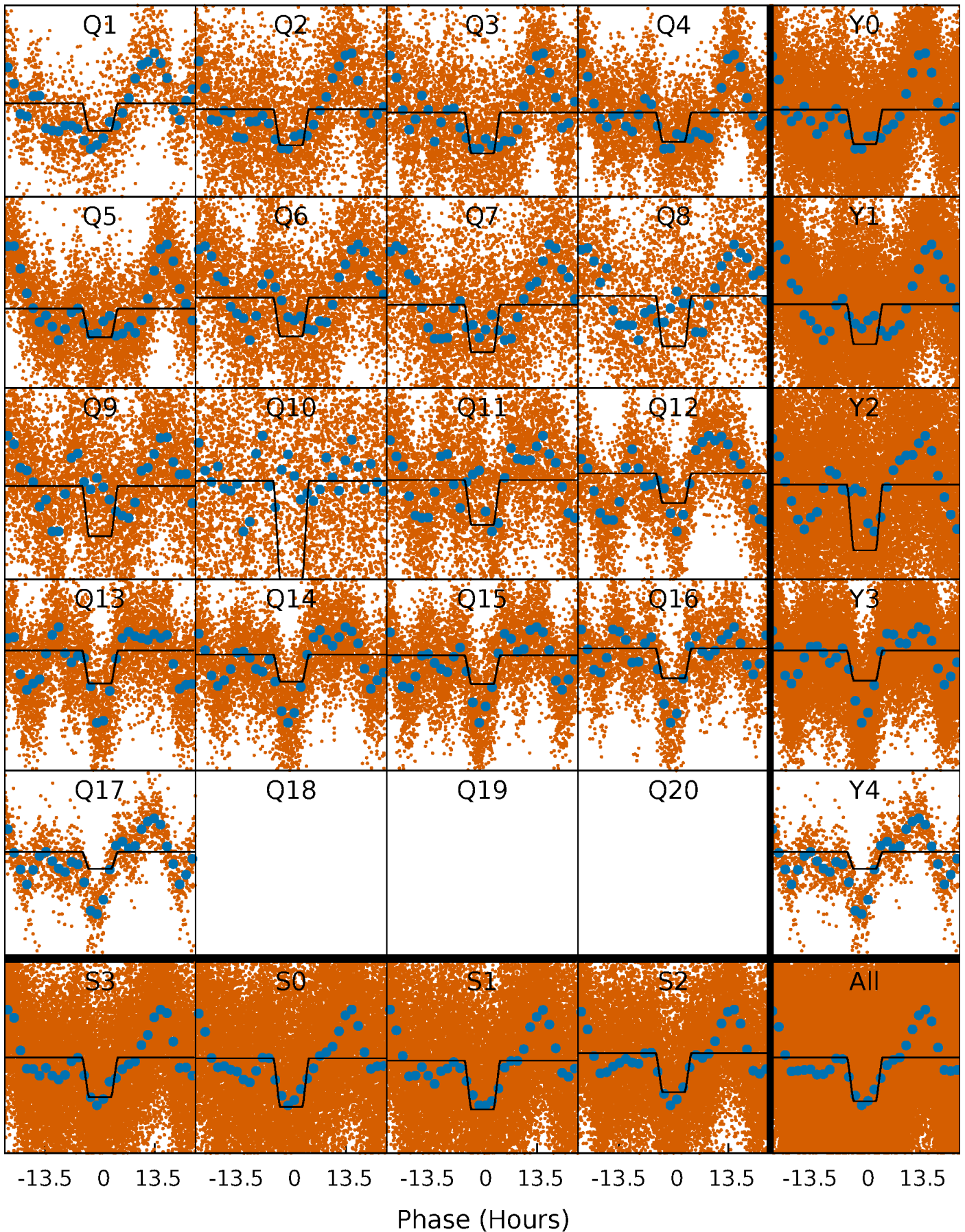
DV Quarter-Phased Transit Curves

TCE 006387311-01 P= 1.587243 Days $T_0=132.929804$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

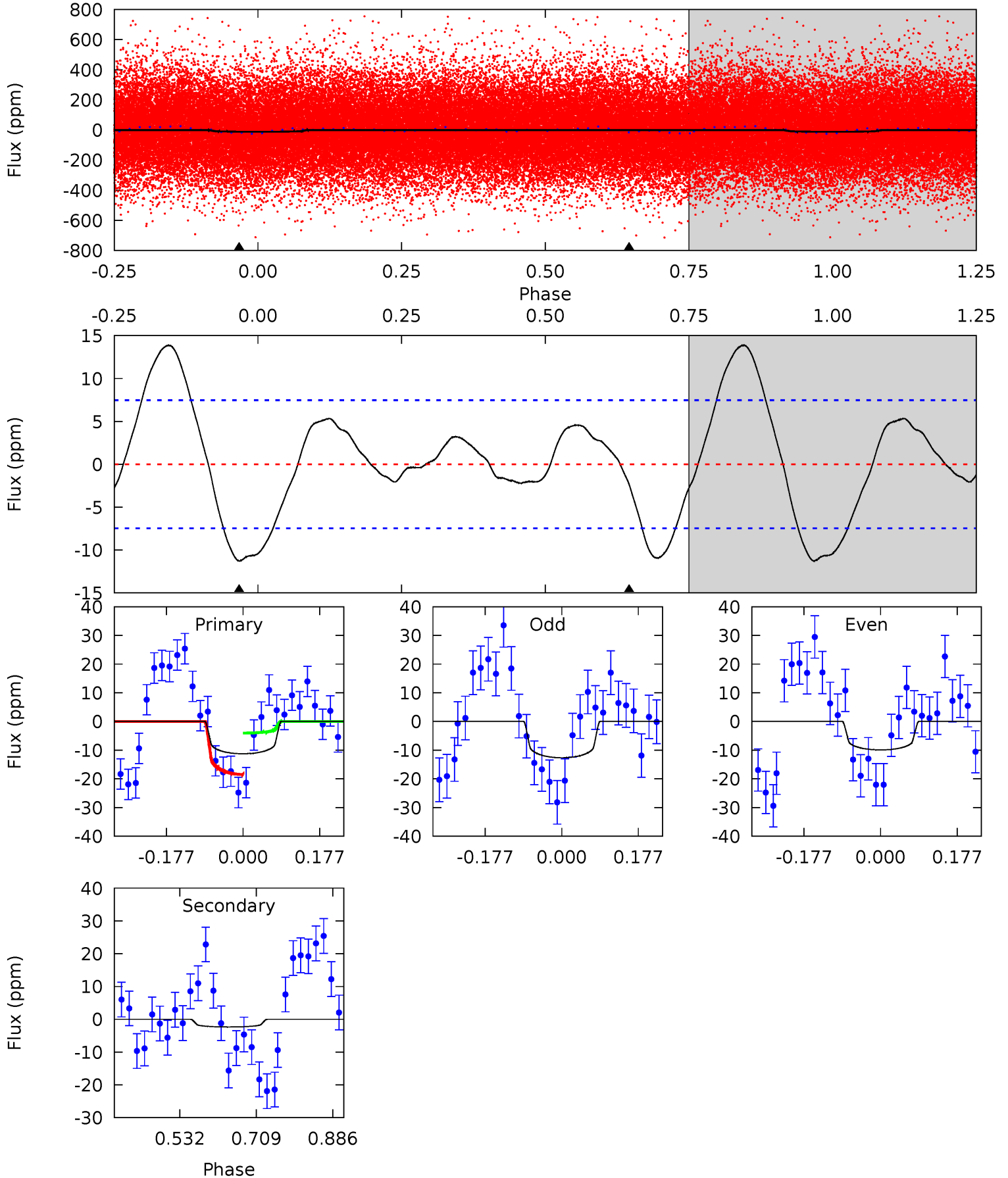
TCE 006387311-01 P= 1.587413 Days $T_0=132.899463$ (BKJD)



DV Model-Shift Uniqueness Test

006387311-01, P = 1.587243 Days, E = 131.342561 Days

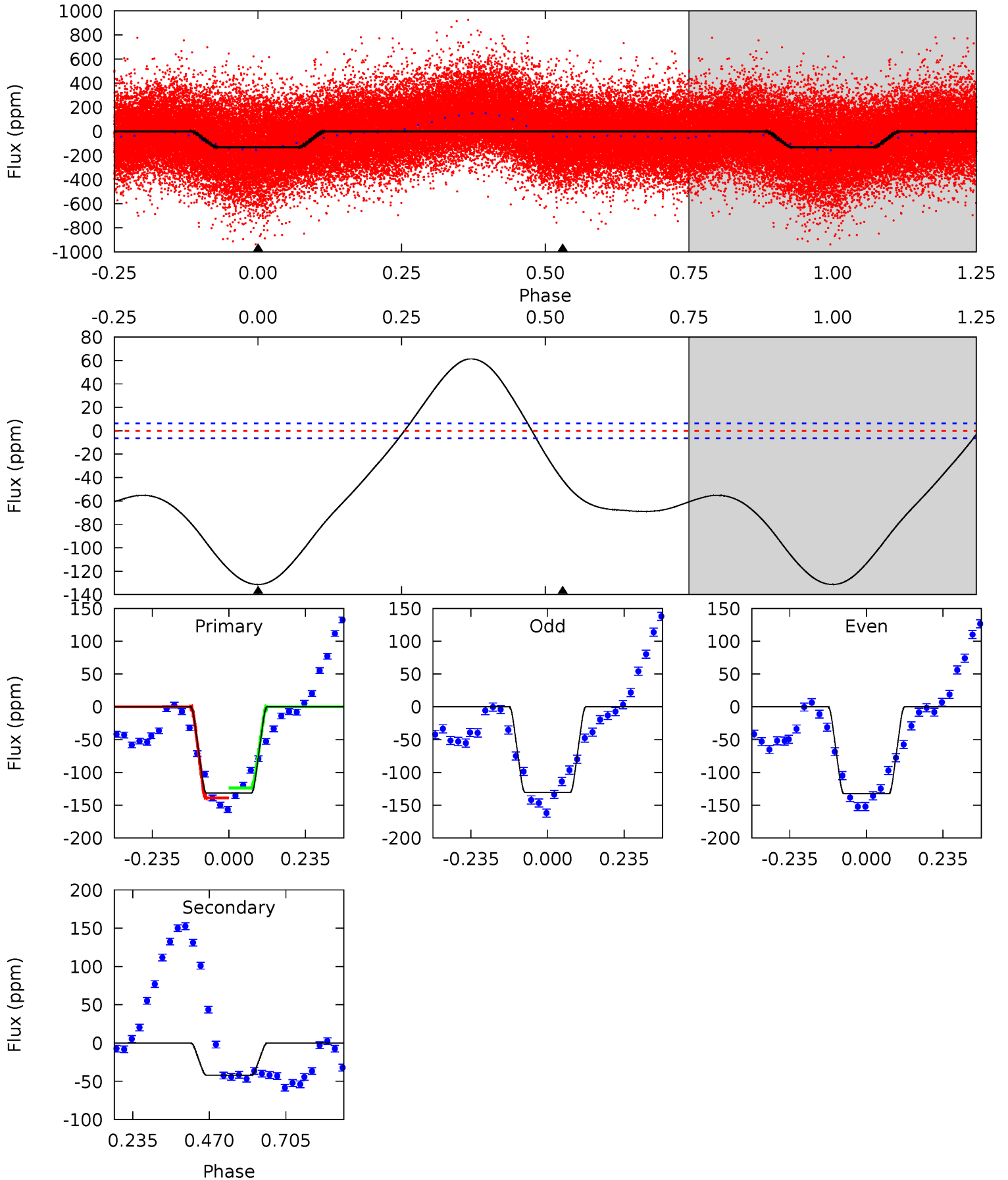
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.70	1.40	0	0	4.44	1.35	1.09	6.70	6.70	1.40	1.40	0.81	1.23	0.55	4.33



Alt Model-Shift Uniqueness Test

006387311-01, P = 1.587413 Days, E = 131.312050 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
89.9	28.8	0	0	4.38	1.19	20.5	89.9	89.9	28.8	28.8	0.65	1.06	0.32	5.11



Stellar Parameters For KIC 006387311

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6190^{+186}_{-204}	$3.552^{+0.376}_{-0.117}$	$-0.400^{+0.350}_{-0.300}$	$3.364^{+0.599}_{-1.398}$	$1.470^{+0.208}_{-0.386}$	$0.054^{+0.157}_{-0.020}$
	+3%/-3%	+11%/-3%	+87%/-75%	+18%/-42%	+14%/-26%	+288%/-37%
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 006387311-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2 ± 2	$1.52^{+0.79}_{-0.66}$	3956^{+292}_{-369}	3224^{+1414}_{-6683}	$0.445^{+1.233}_{-0.339}$
Alt.	-42 ± 1	$4.12^{+1.00}_{-1.13}$	3957^{+264}_{-437}	4498^{+430}_{-418}	$1.287^{+1.012}_{-0.465}$

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

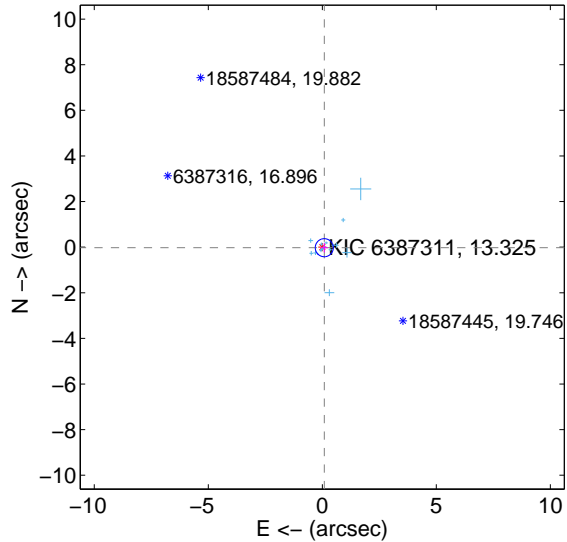
Supplemental centroid analysis for 006387311-01. Kepler magnitude: 13.32. Transit SNR 5.54

There are 17 quarters with good PRF difference image offsets

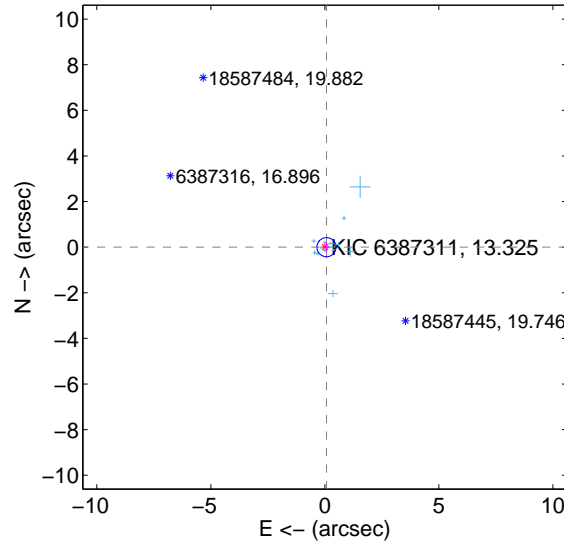
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.090 ± 0.132	0.68	-0.087 ± 0.156	-0.023 ± 0.212
PRF-fit source offset from KIC position	0.072 ± 0.140	0.51	-0.072 ± 0.139	0.000 ± 0.227
photometric centroid source offset	4.26 ± 1.53	2.79	-4.18 ± 1.54	-0.82 ± 1.27

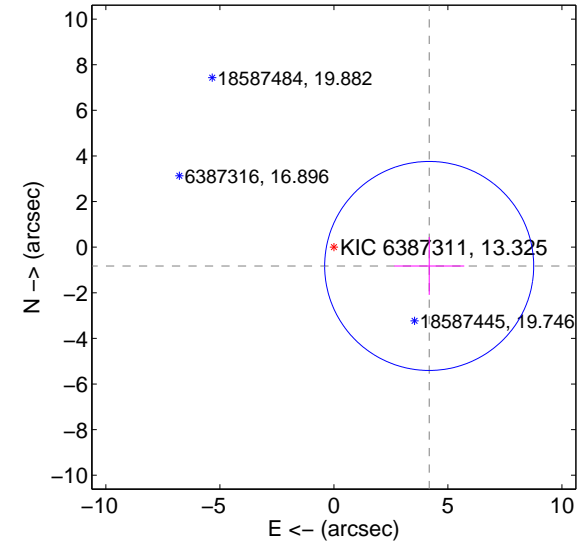
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

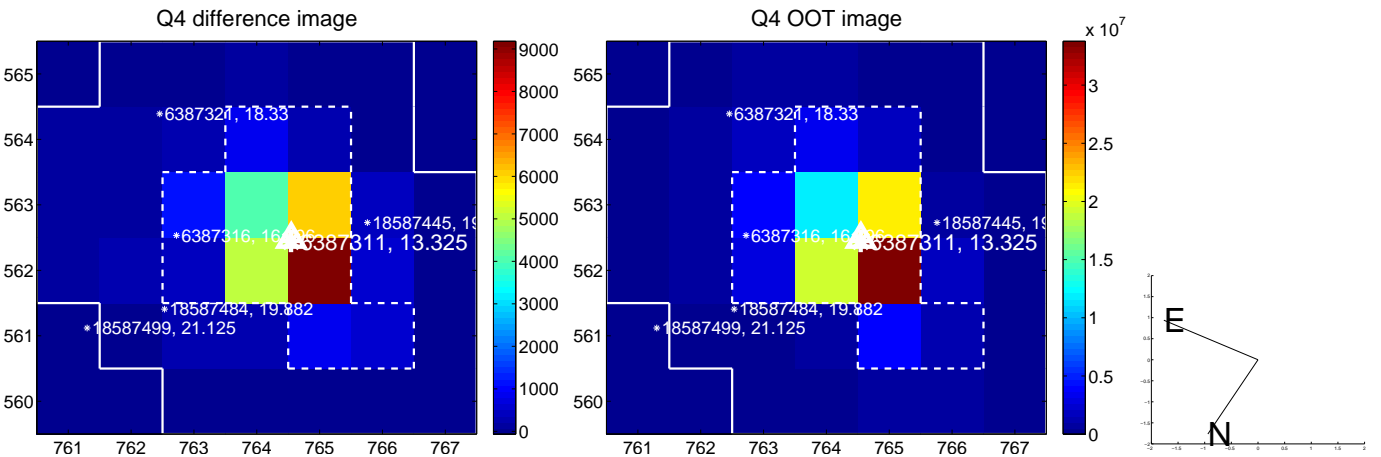
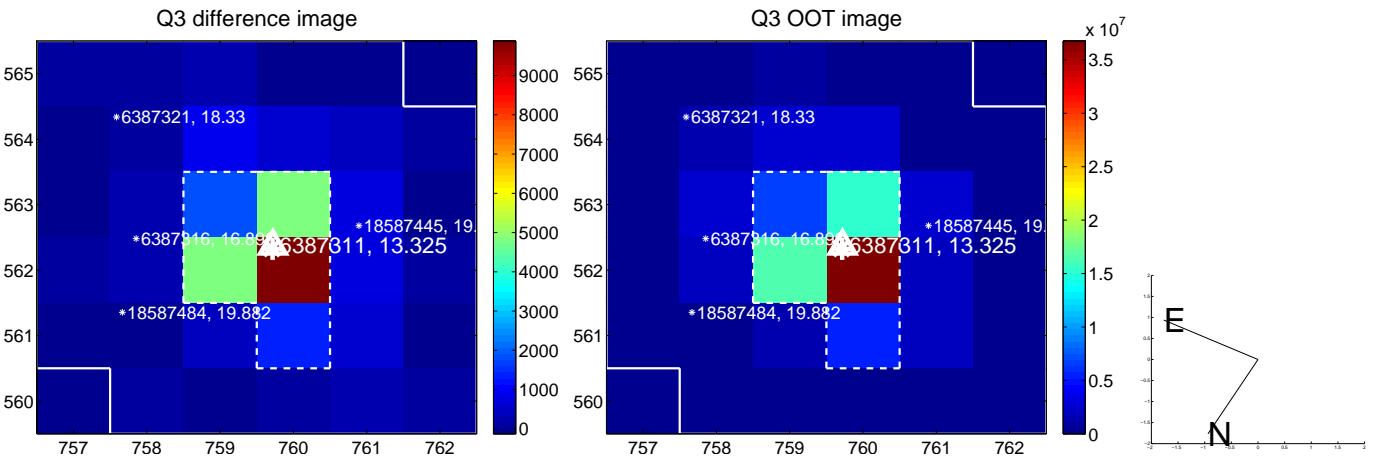
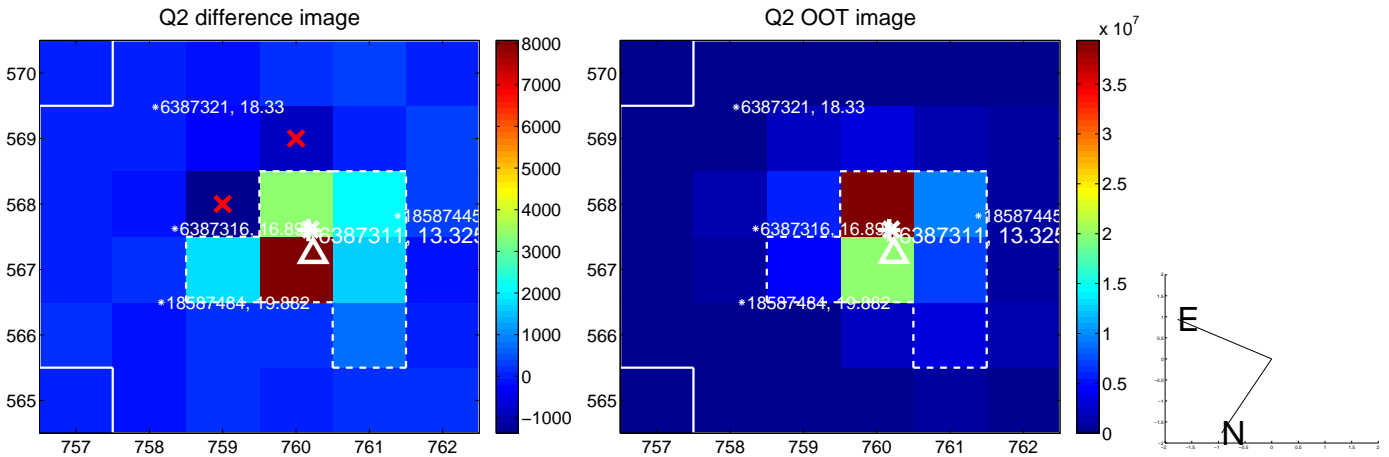
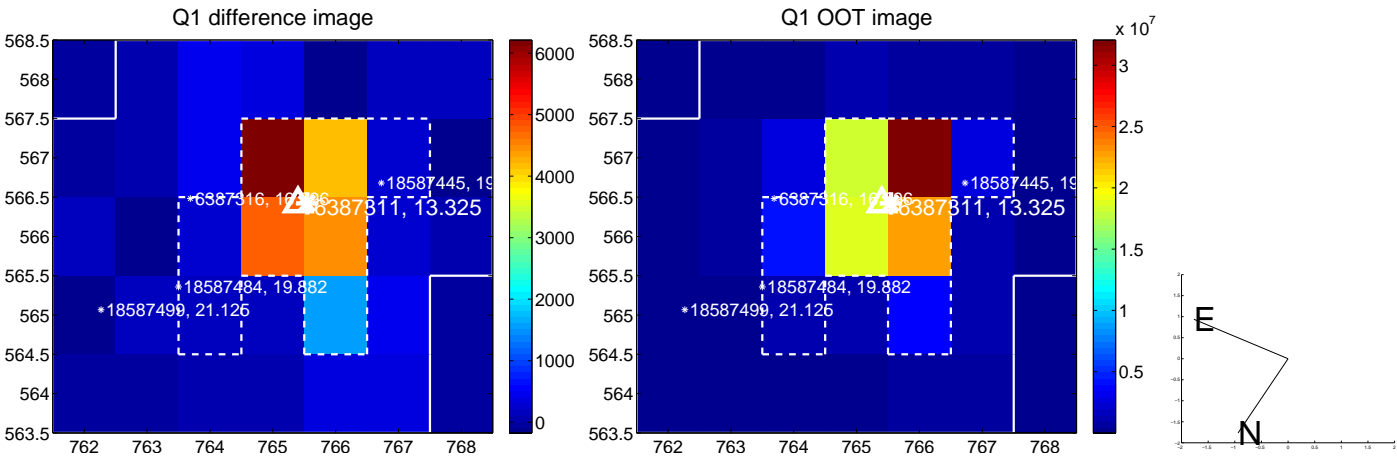


offset from photometric centroids

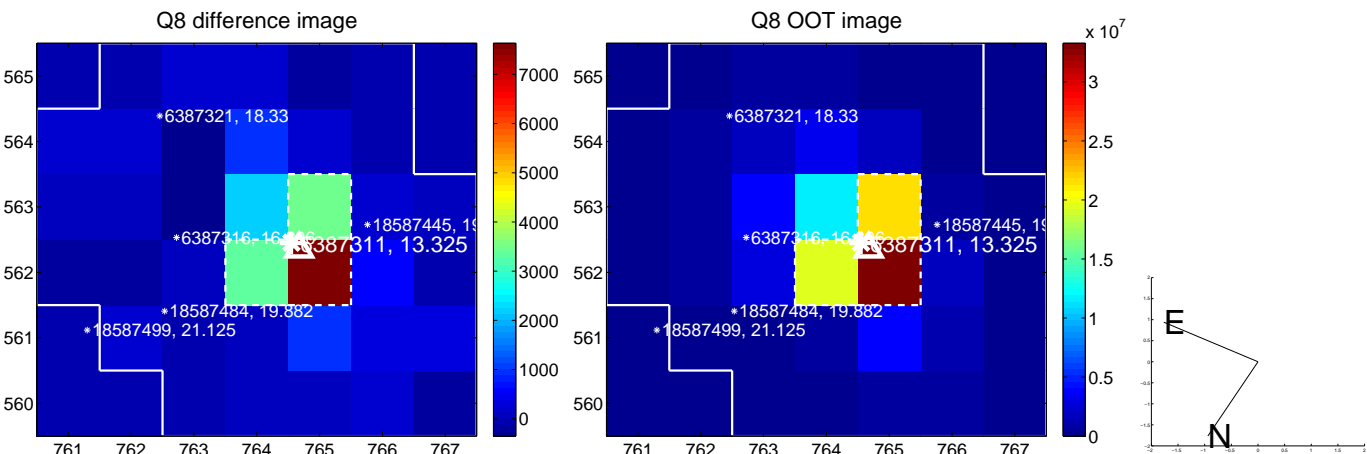
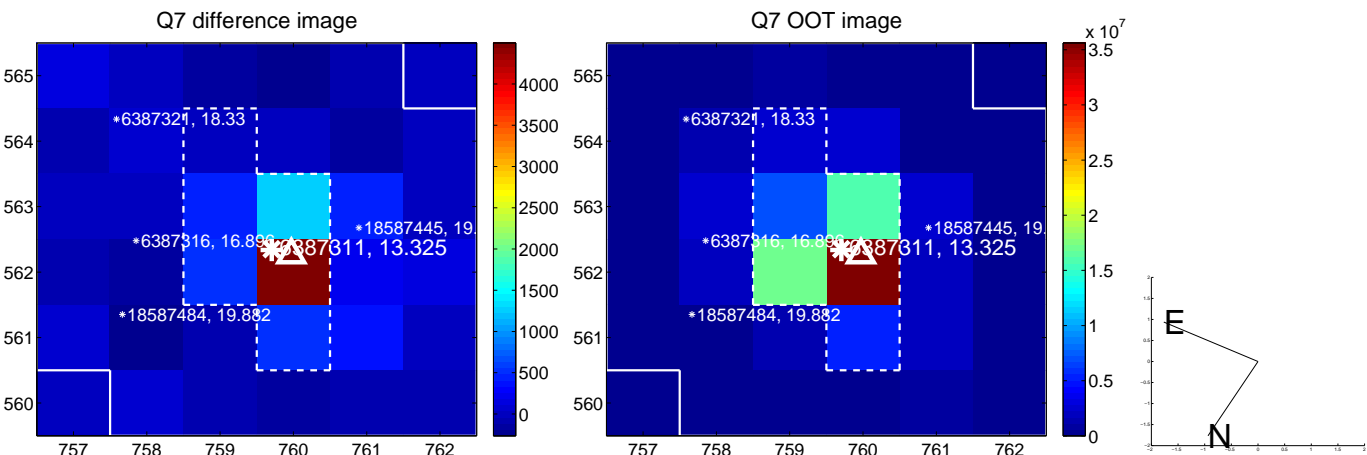
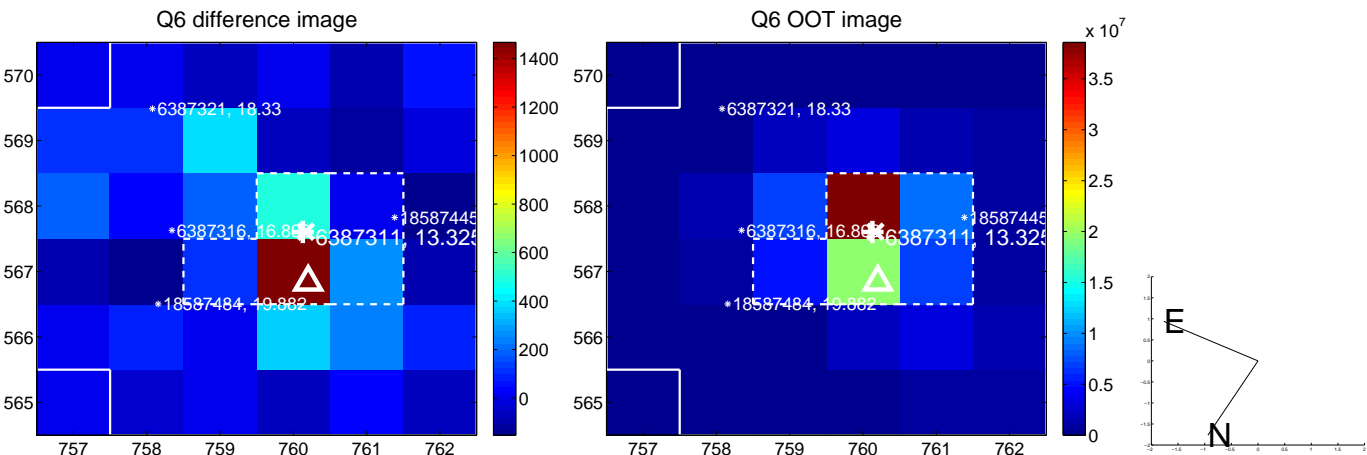
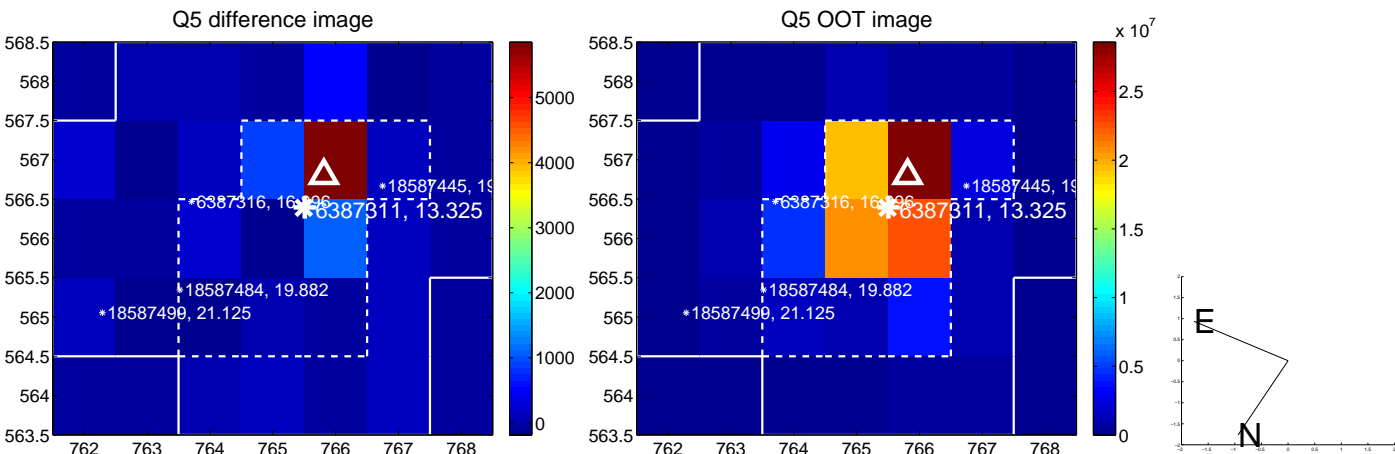


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

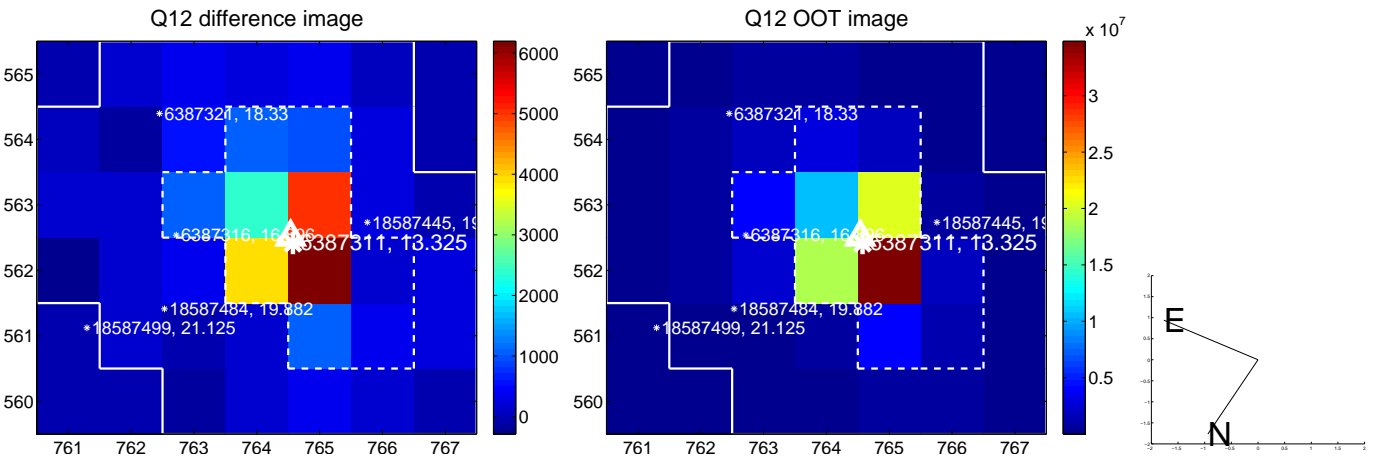
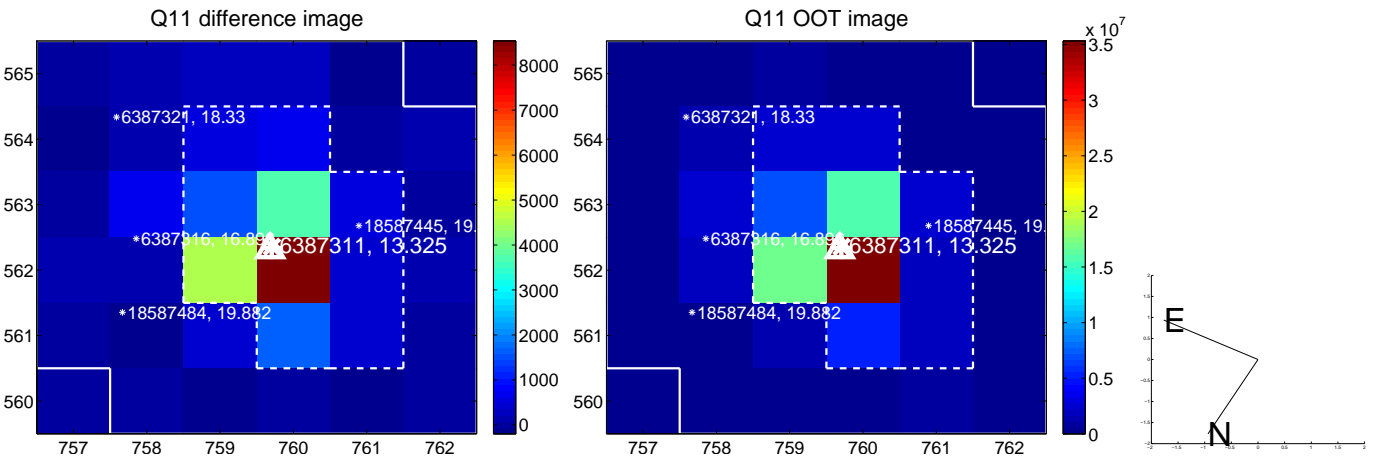
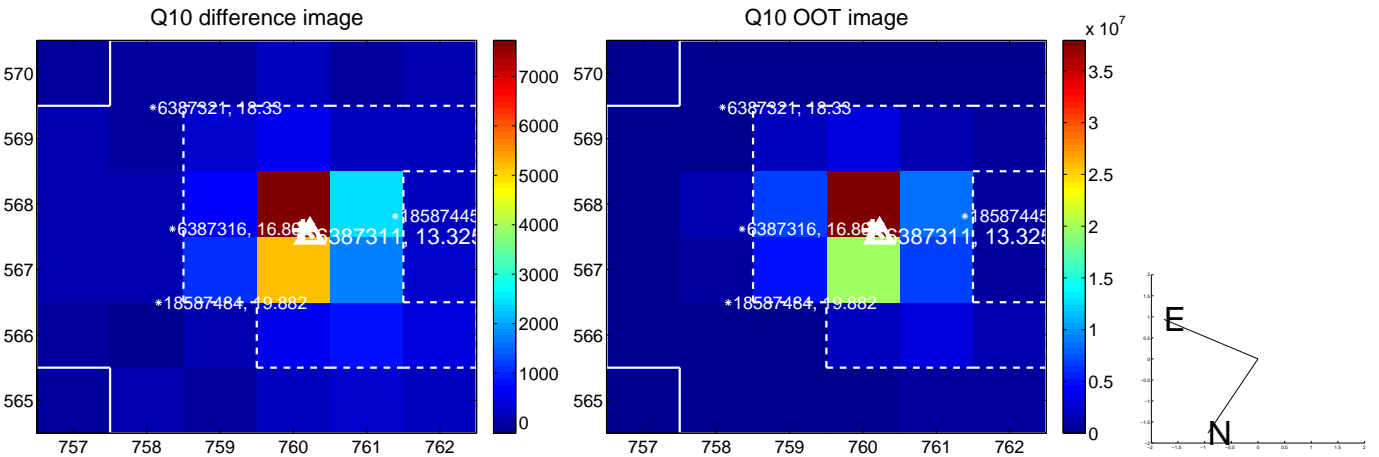
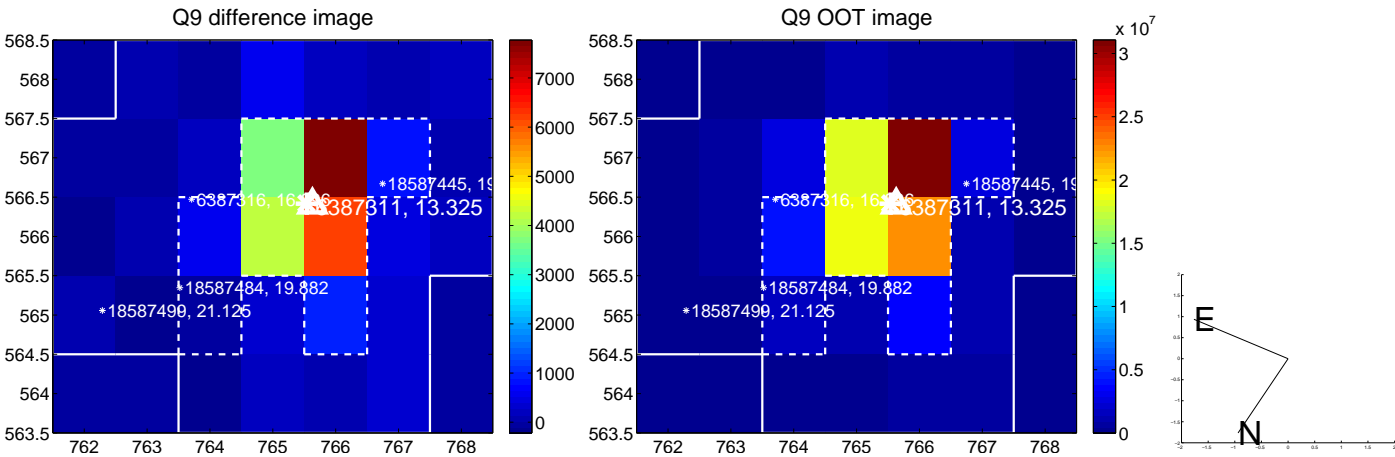
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



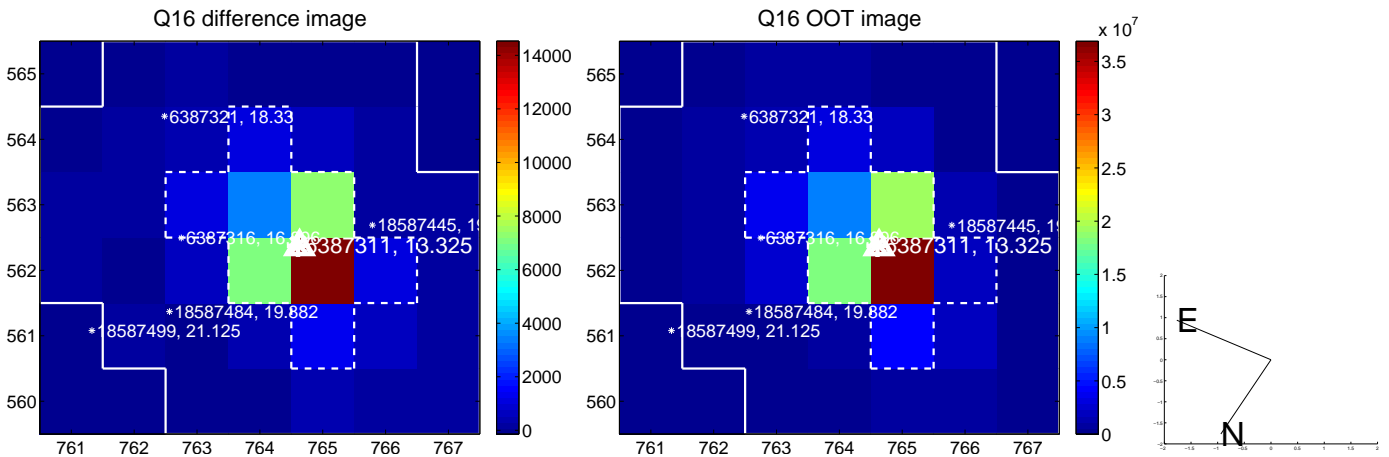
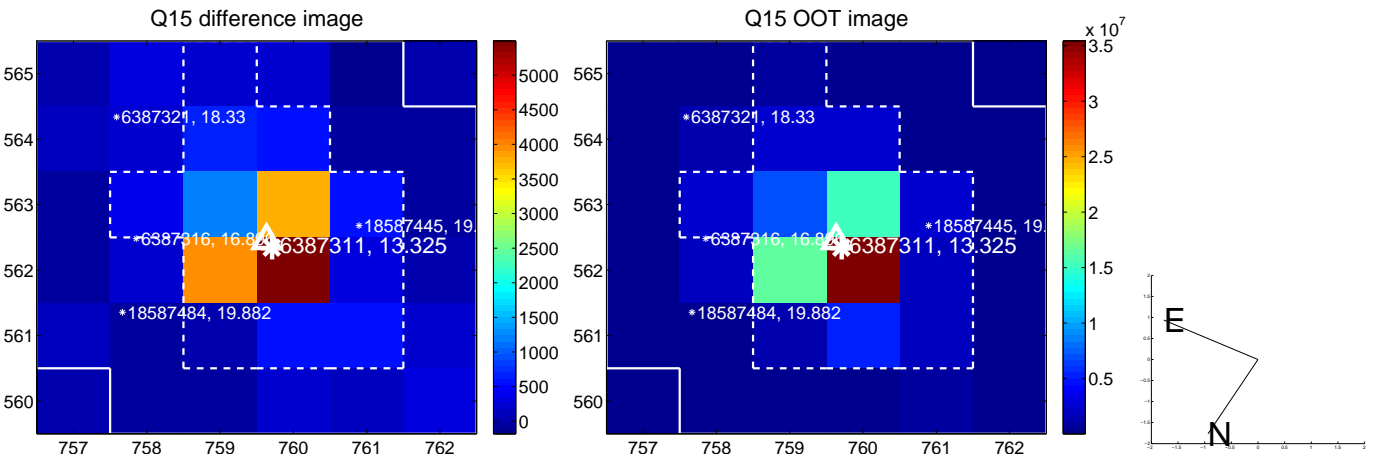
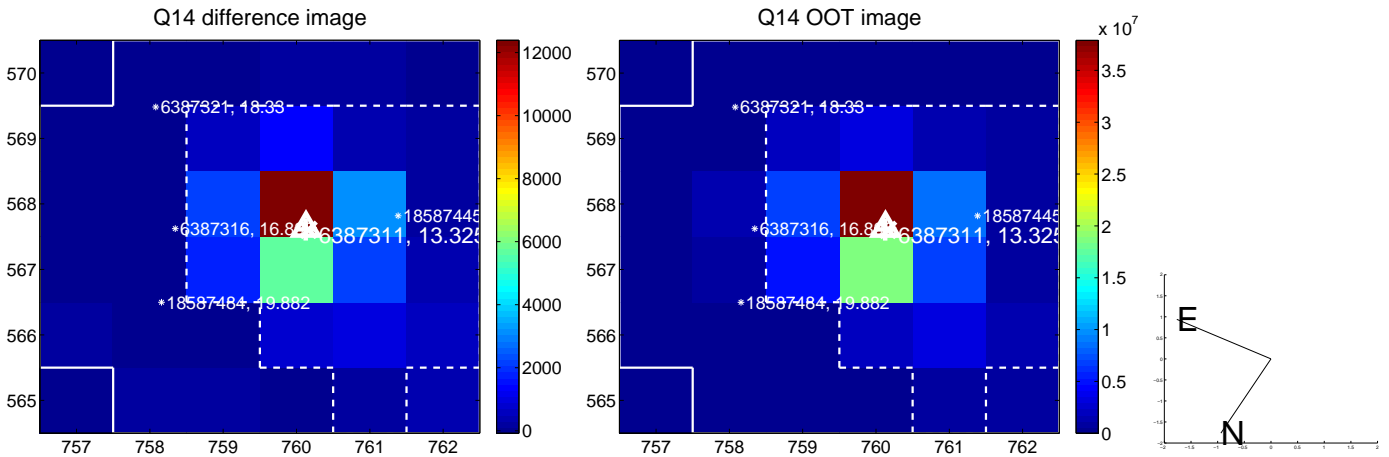
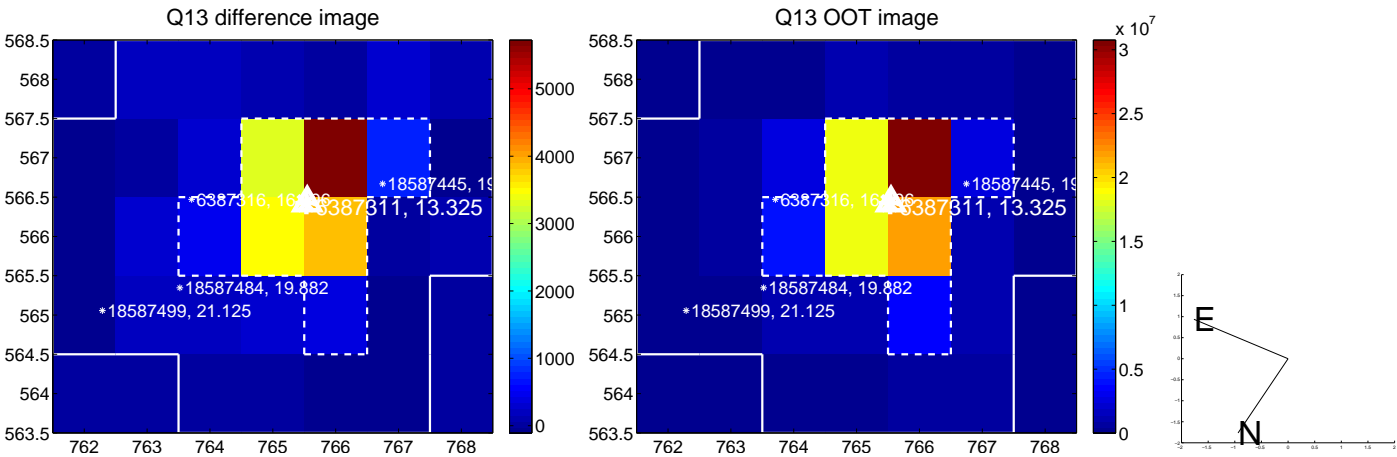
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



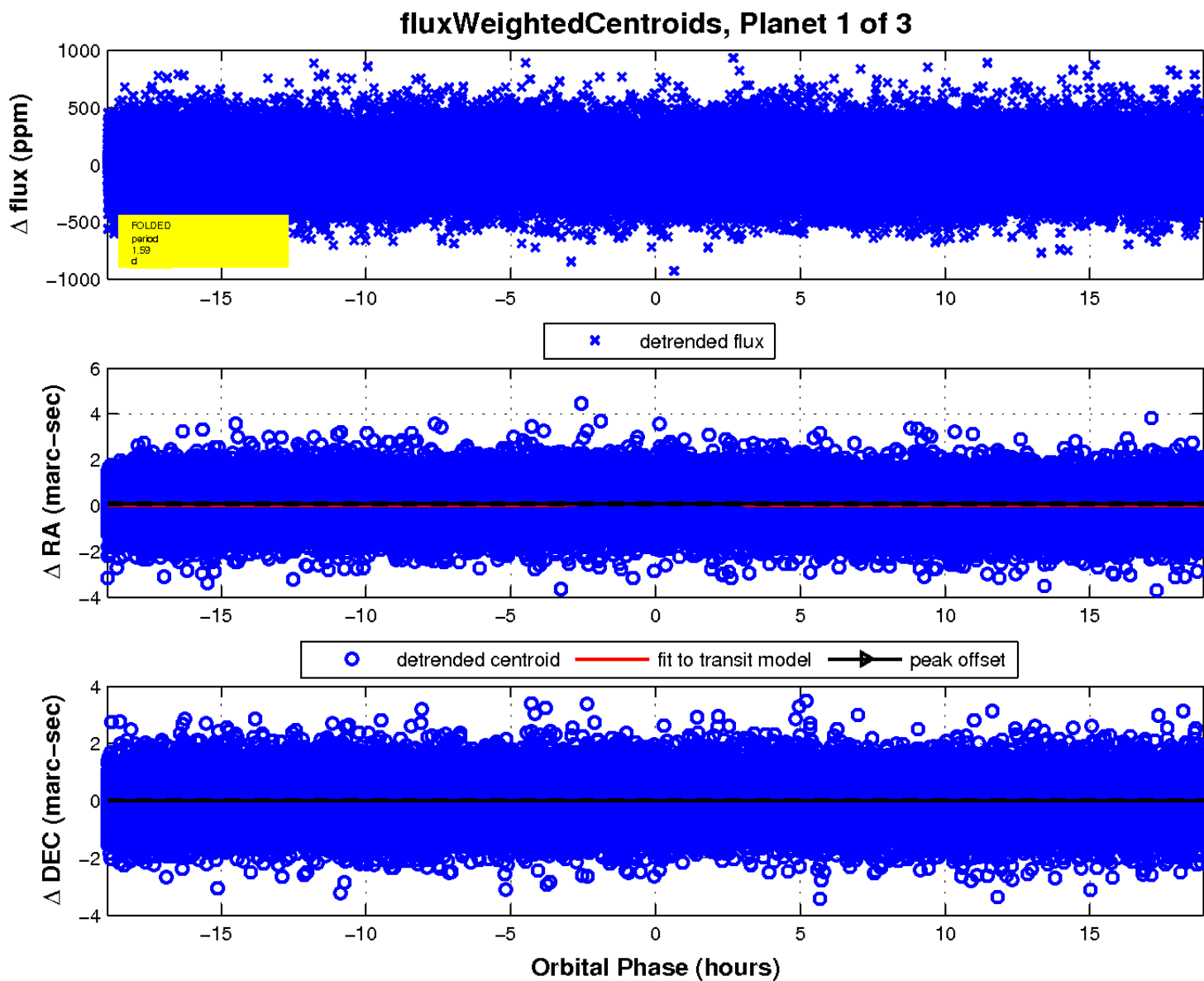
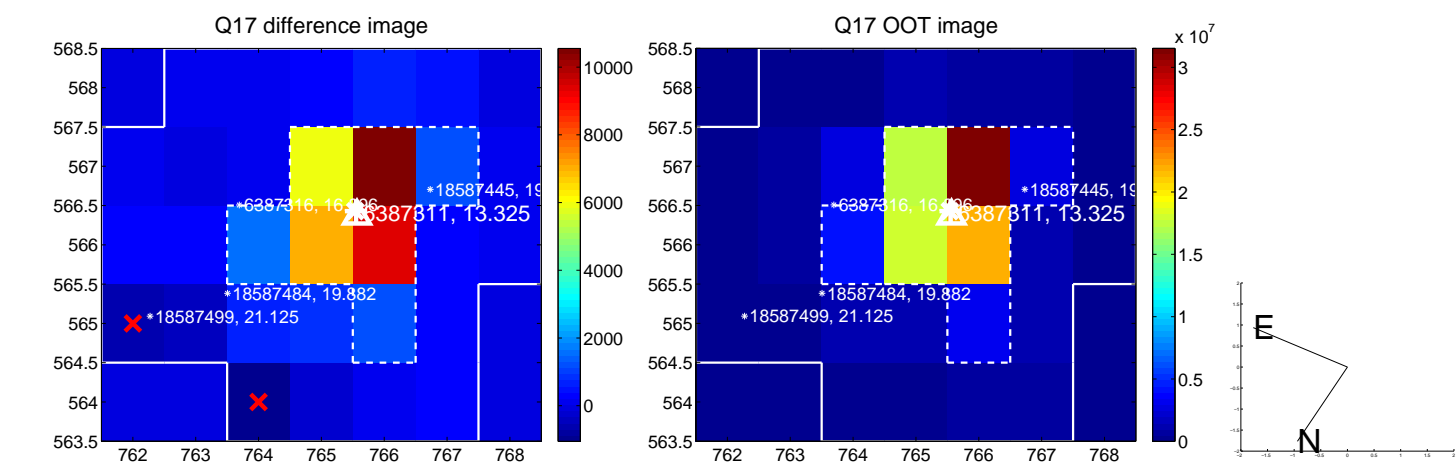
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

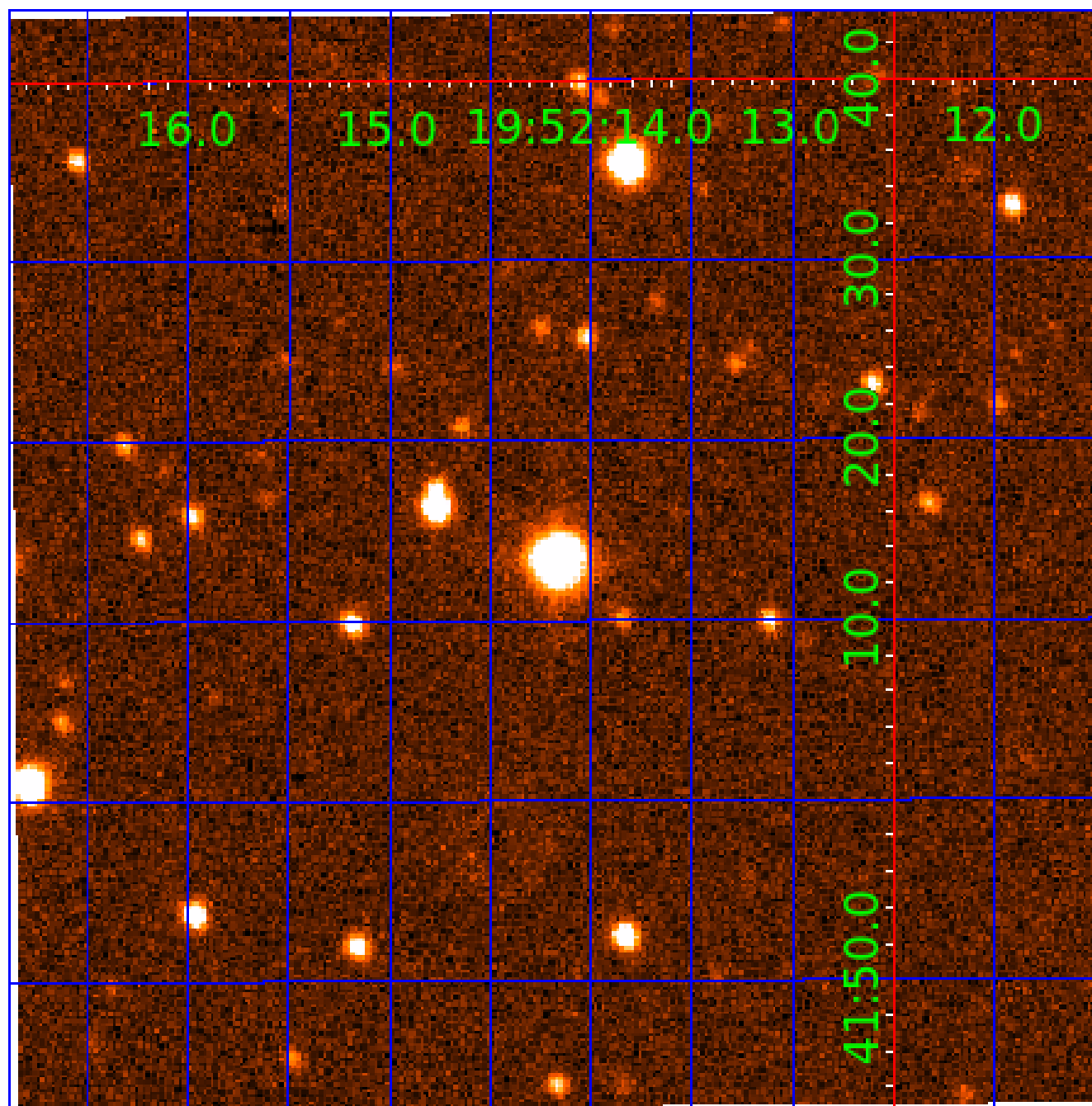


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006387311

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})
006387311-01	OBS	No	1.587243	132.929804	16.8	6.308	8.9	5.5	3.36	6190	1.65	16219.46
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006387311-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006387311-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT
006387311-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST

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

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

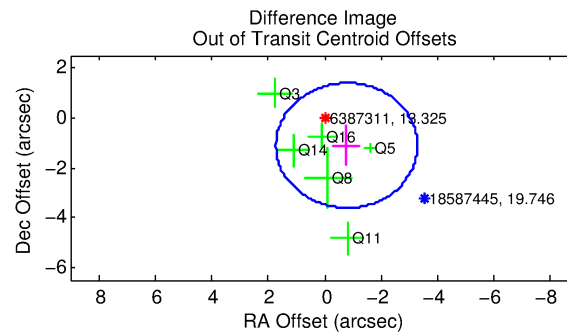
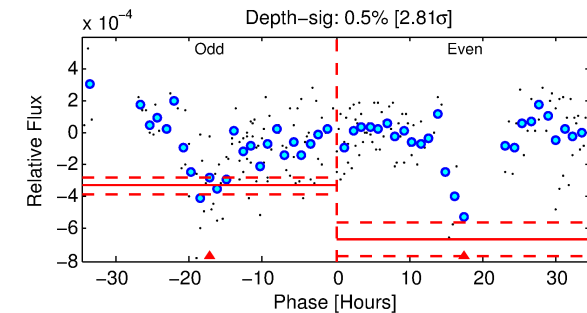
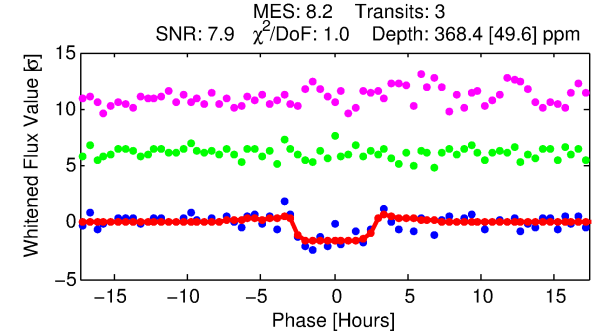
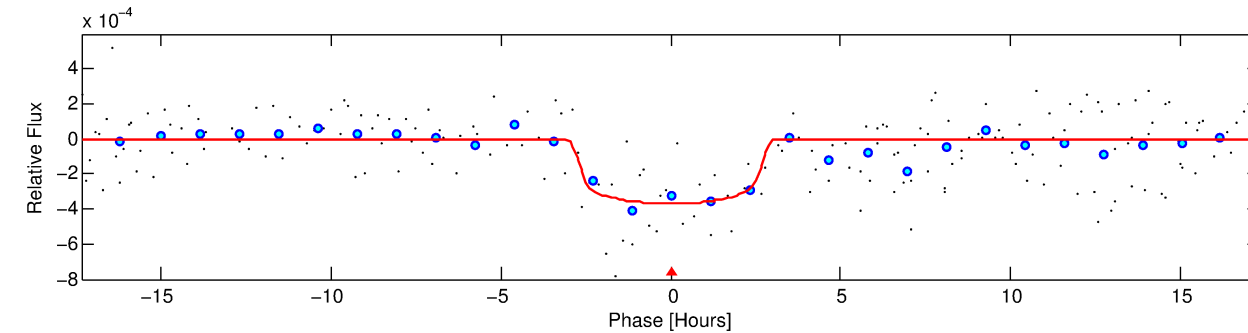
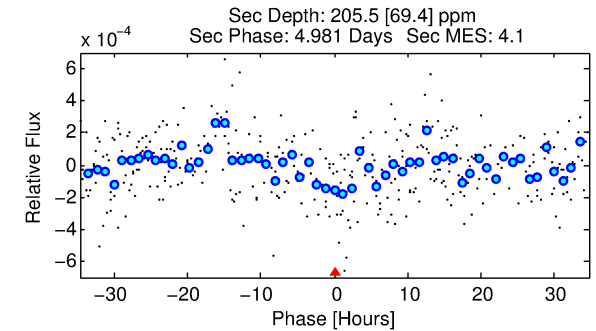
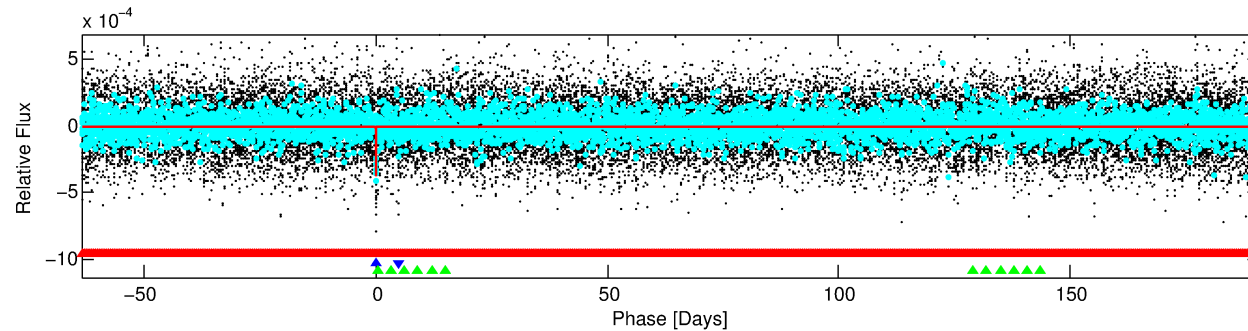
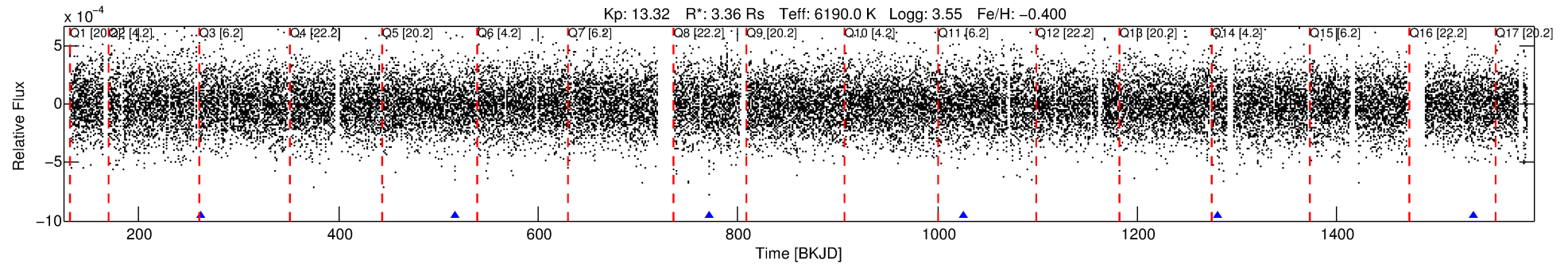
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006387311-02

No Significant Match Found

DV One-Page Summary

KIC: 6387311 Candidate: 2 of 3 Period: 254.894 d



DV Fit Results:

Period = 254.89387 [0.00478] d
Epoch = 261.7487 [0.0138] BKJD
Rp/R* = 0.0197 [0.0106]
a/R* = 198.23 [562.11]
b = 0.83 [1.06]
Seff = 18.58 [12.15]
Teq = 529 [87] K
Rp = 7.24 [4.91] Re
a = 0.8950 [0.3581] AU
Ag = 1725.87 [2229.14] [0.77σ]
Teffp = 5276 [1490] K [3.18σ]

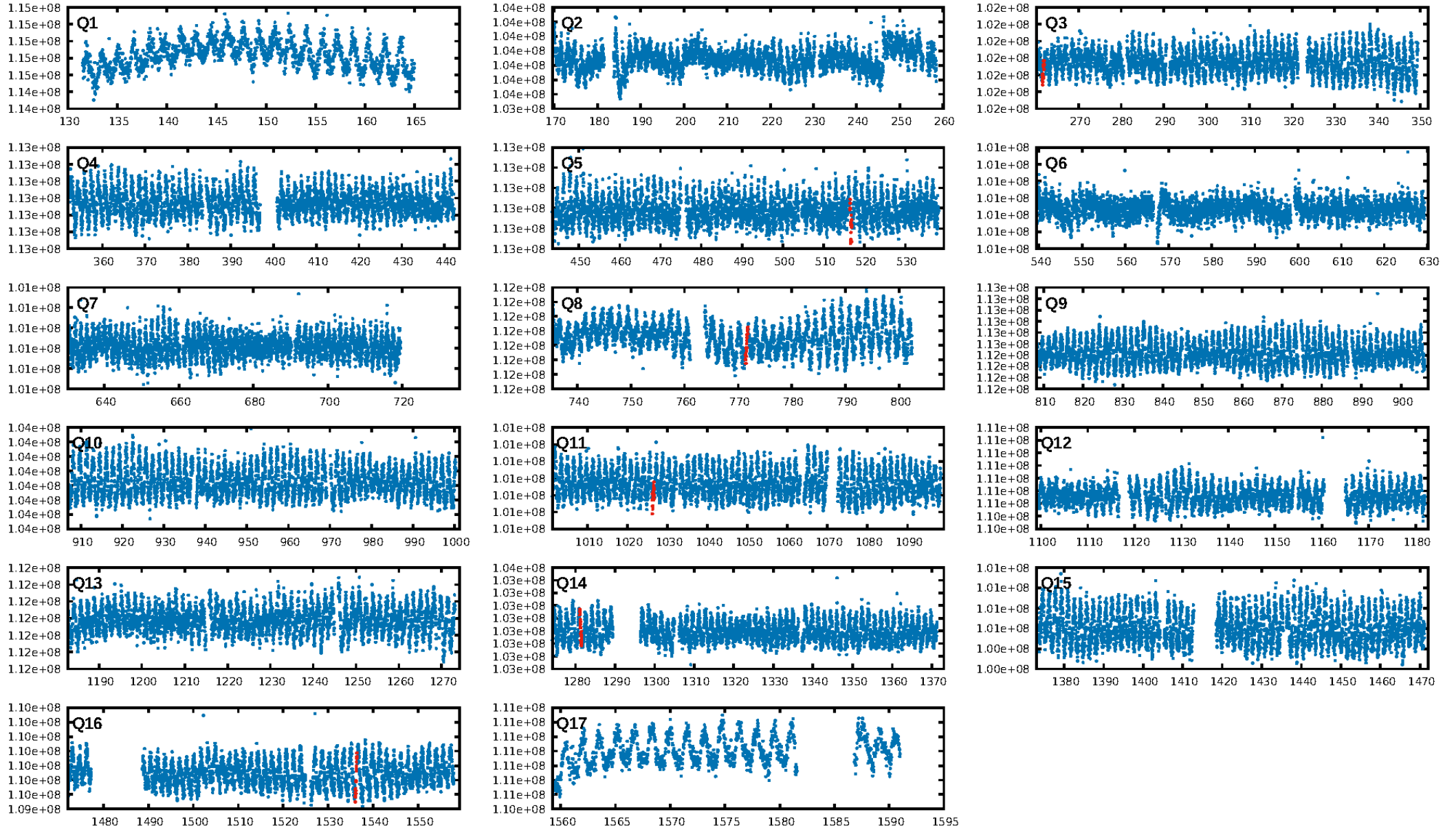
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [307.24σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 17.2%
ModelChiSquareGof-sig: 95.5%
Bootstrap-pfa: 1.04e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.721
Centroid-sig: 7.3%
Centroid-so: 0.758 arcsec [1.02σ]
OotOffset-rm: 1.354 arcsec [1.62σ]
KicOffset-rm: 1.402 arcsec [1.71σ]
OotOffset-st: 1/2/2/1 [6]
KicOffset-st: 1/2/2/1 [6]
DiffImageQuality-fgm: 0.83 [5/6]
DiffImageOverlap-fno: 0.17 [1/6]

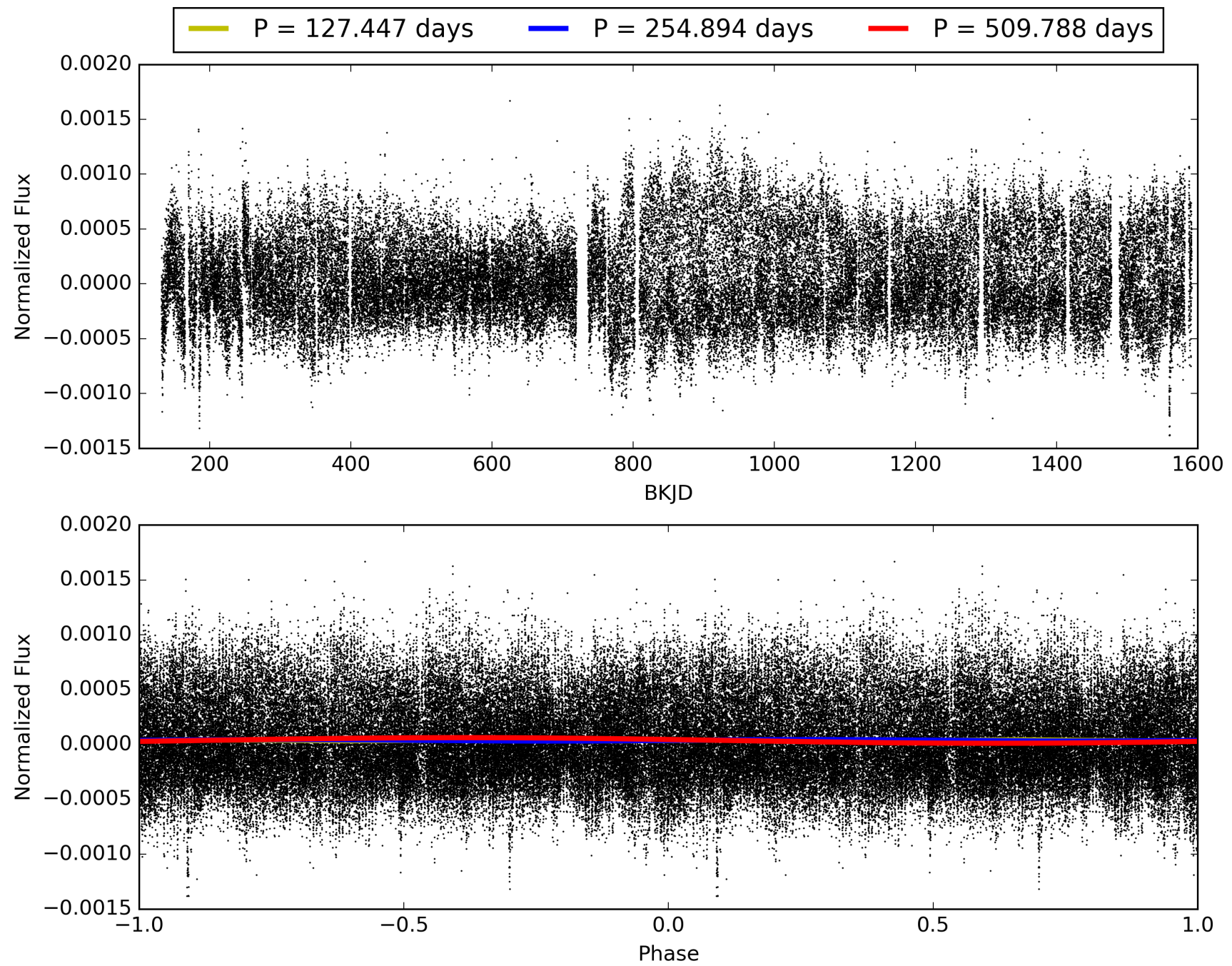
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:05:54 Z

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

TCE 006387311-02, PDC Light Curves

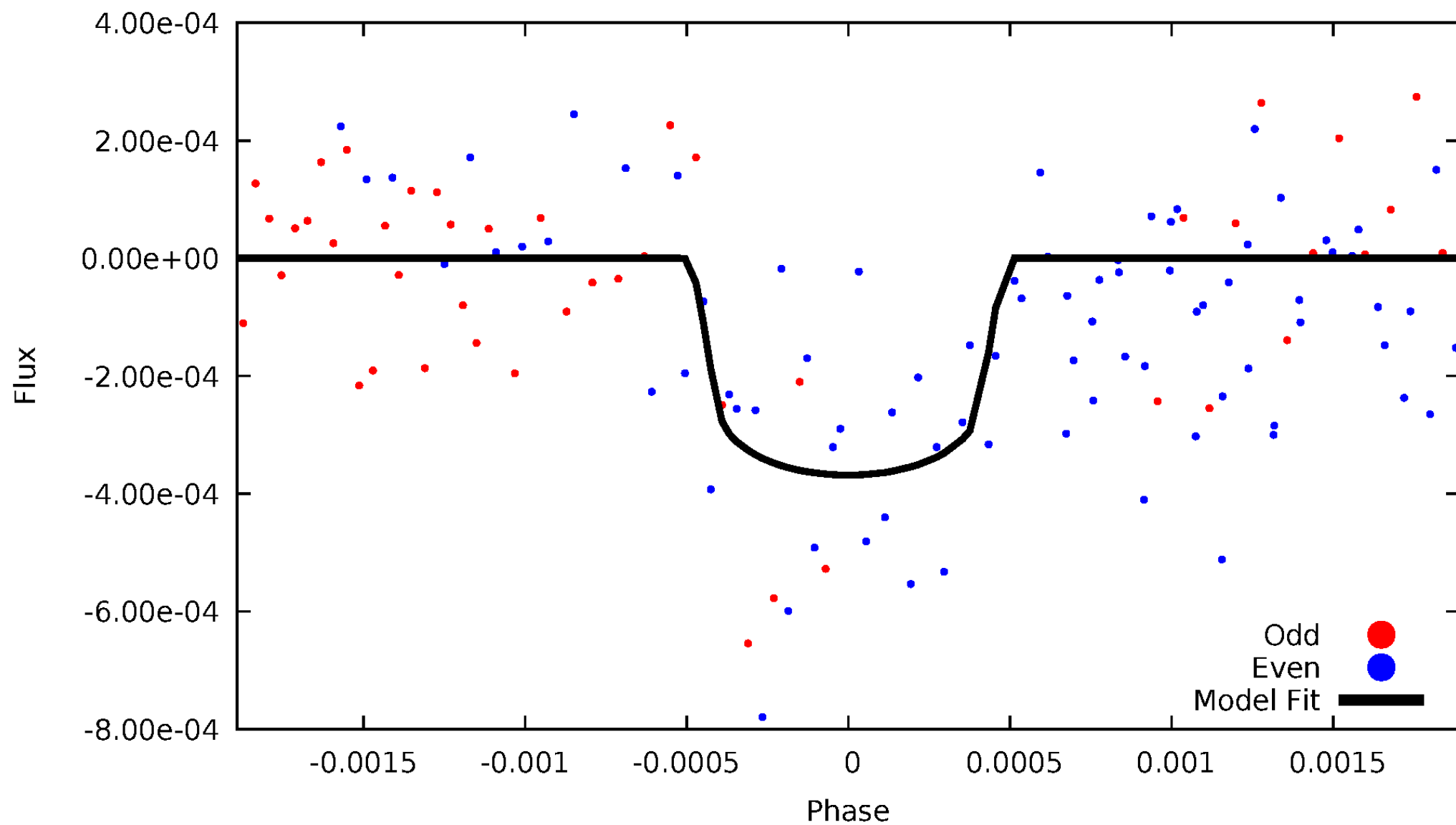


TCE 006387311-02



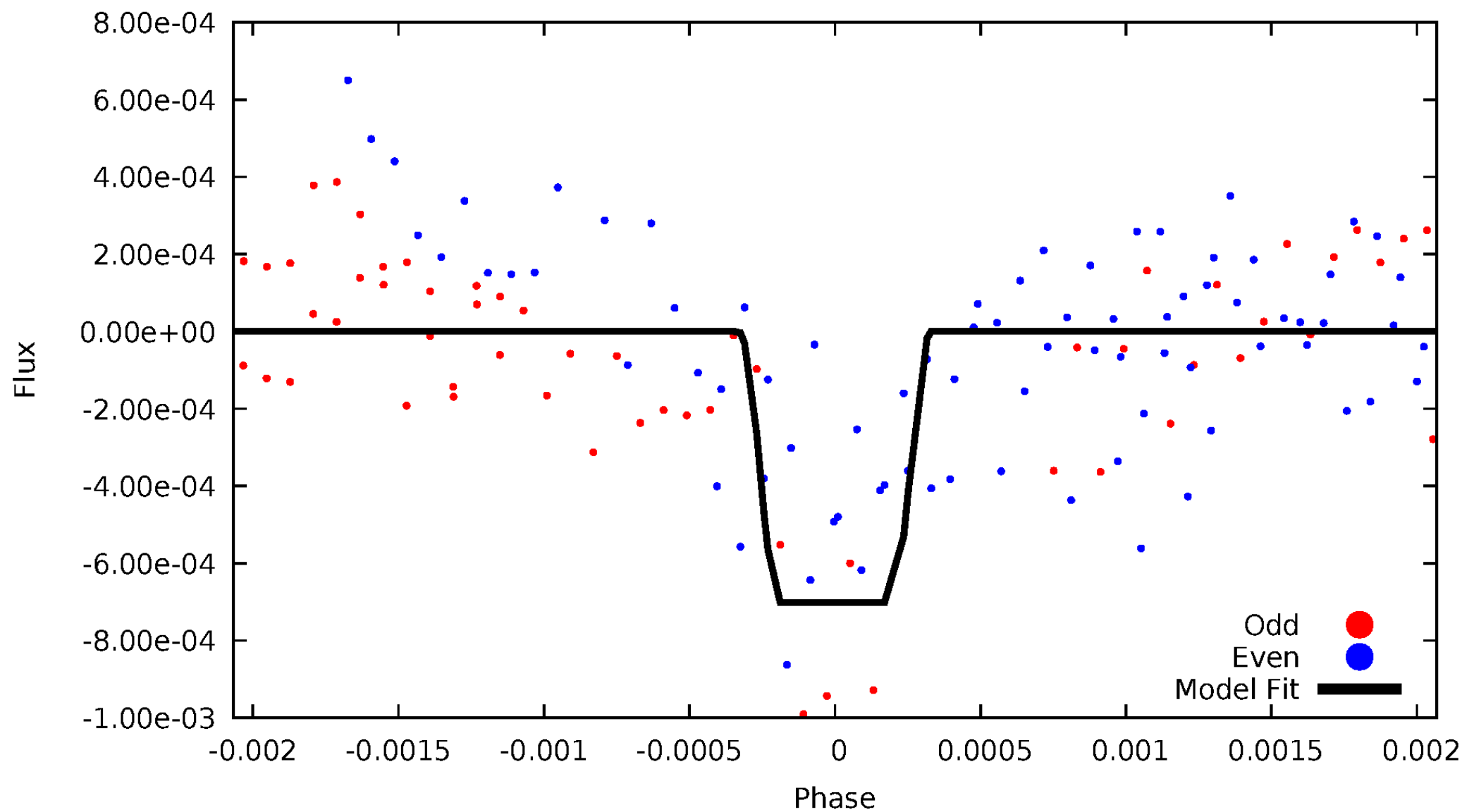
DV Odd/Even

TCE 006387311-02



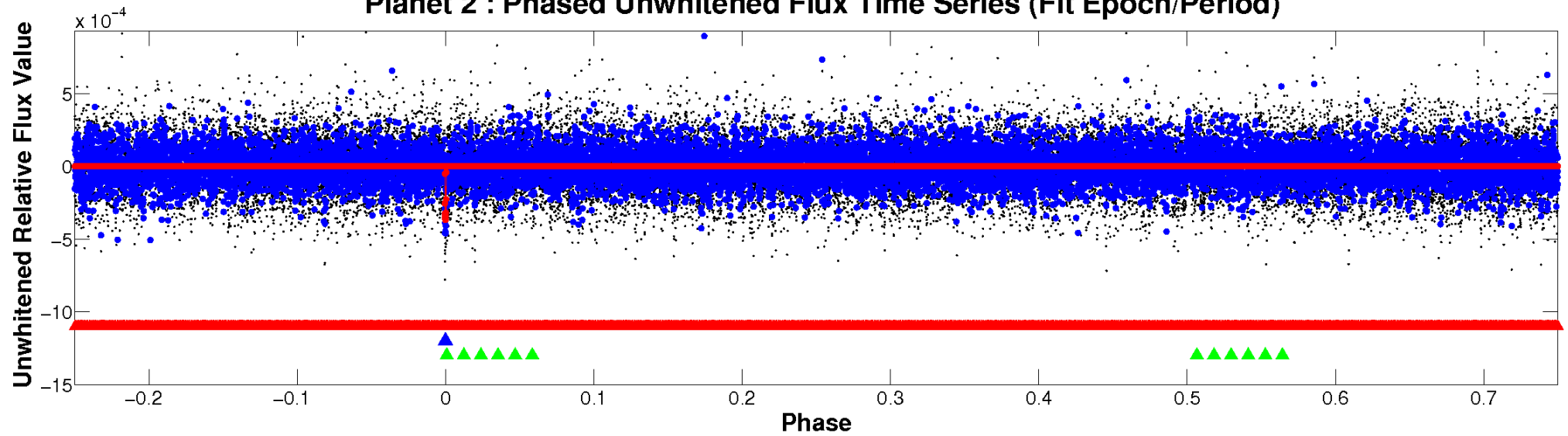
ALT Odd/Even

TCE 006387311-02

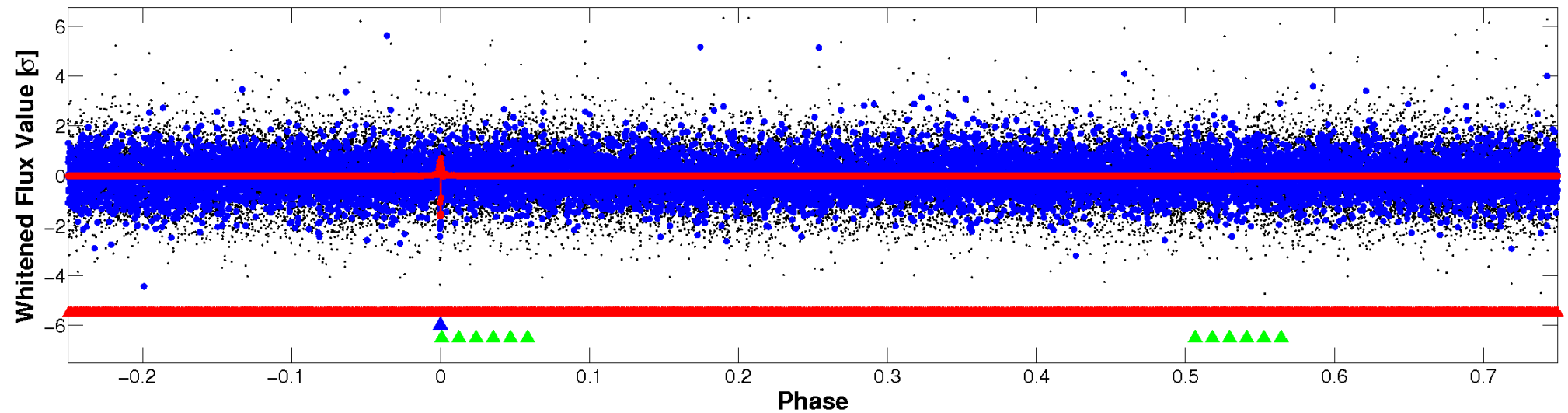


Non-Whitened Vs. Whitened Light Curve

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

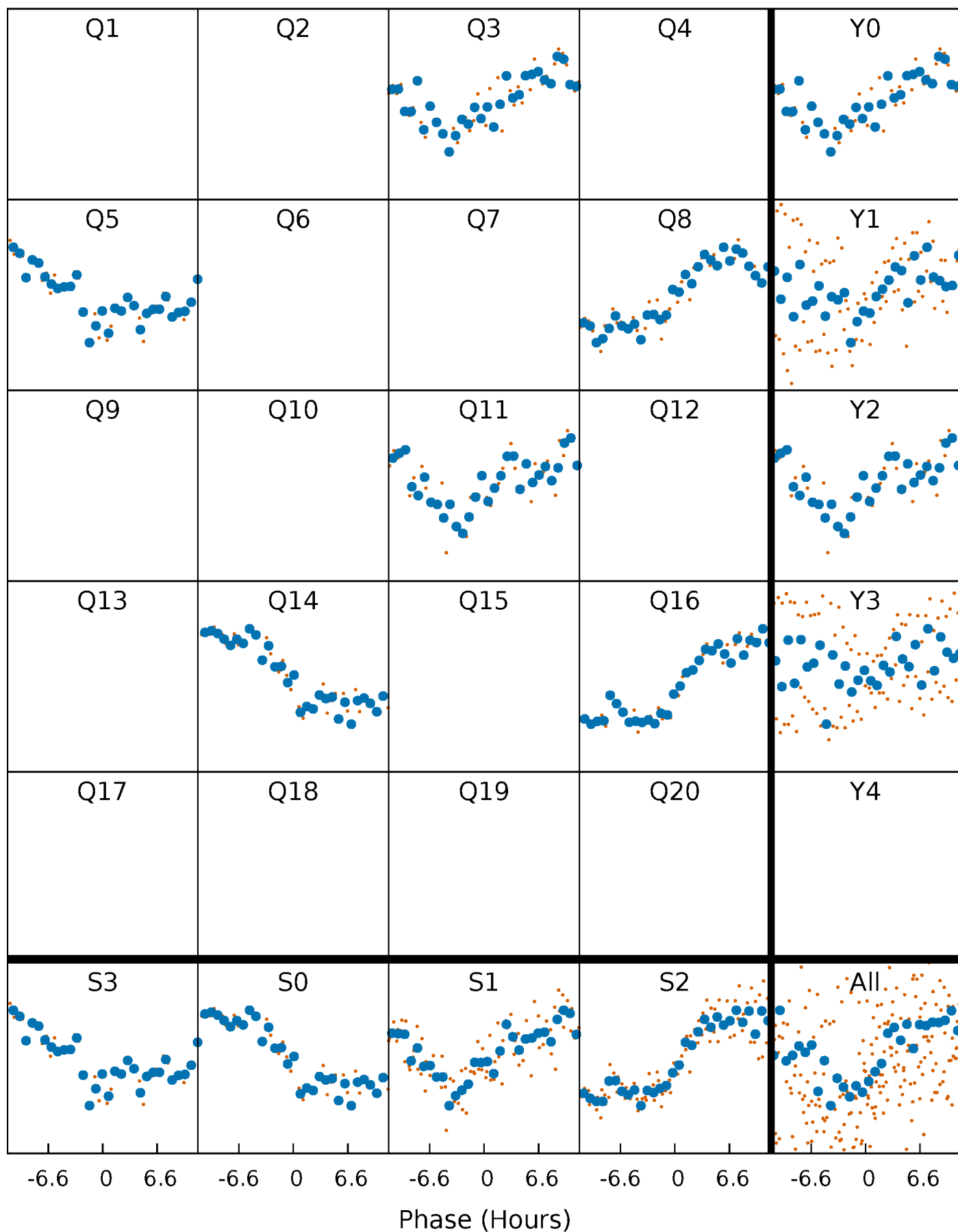


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



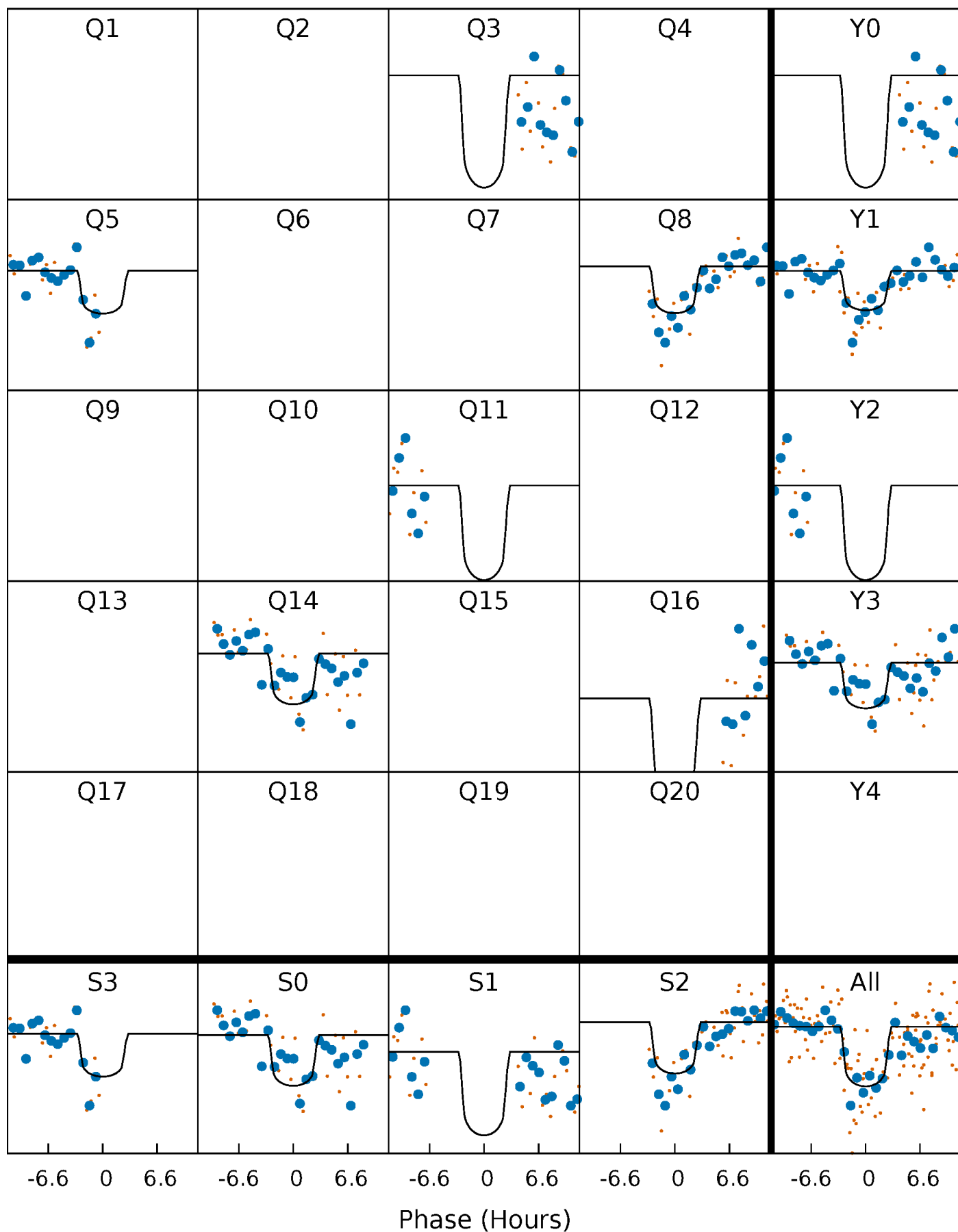
PDC Quarter-Phased Transit Curves

TCE 006387311-02 P=254.893868 Days $T_0=261.748686$ (BKJD)



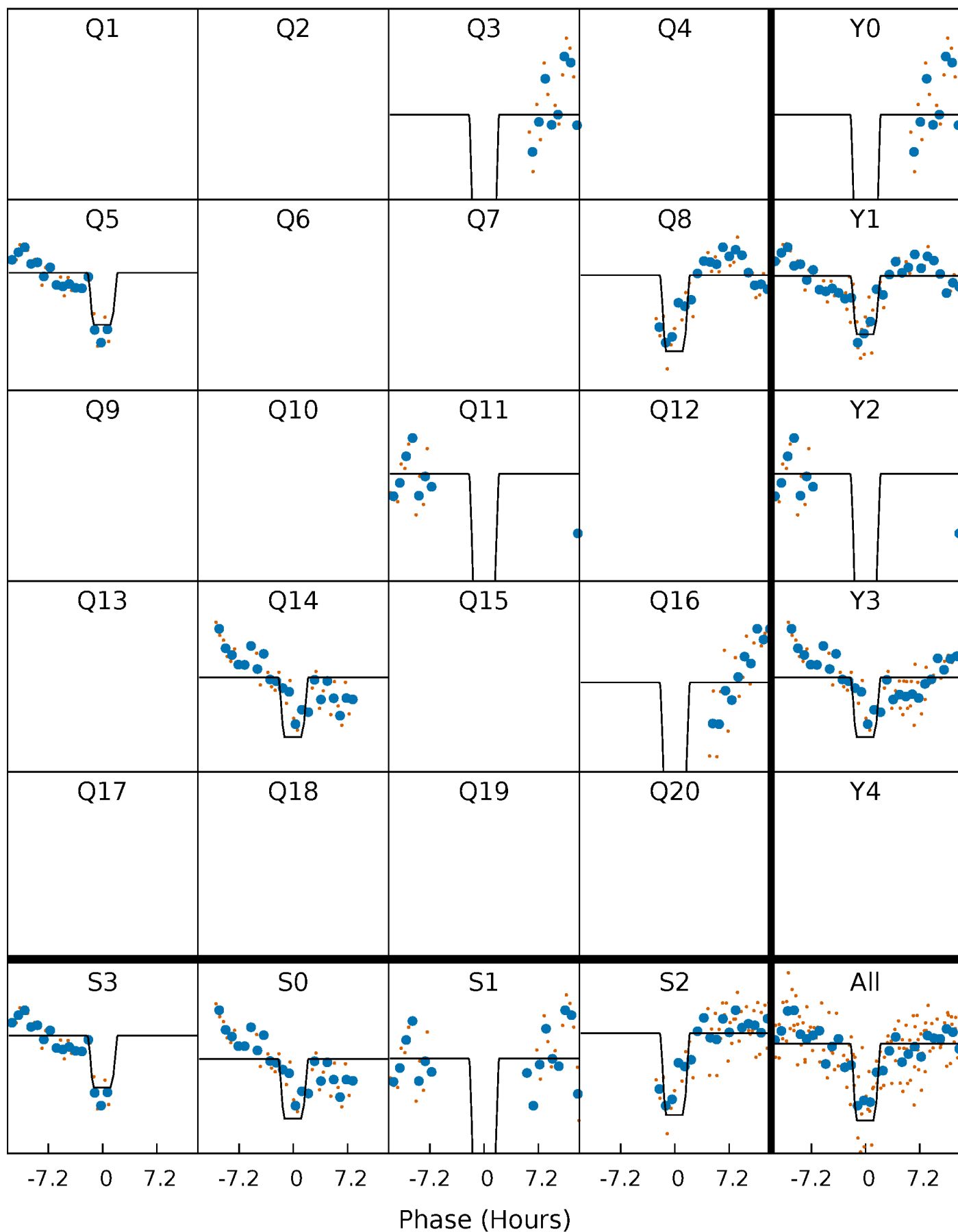
DV Quarter-Phased Transit Curves

TCE 006387311-02 $P=254.893868$ Days $T_0=261.748686$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

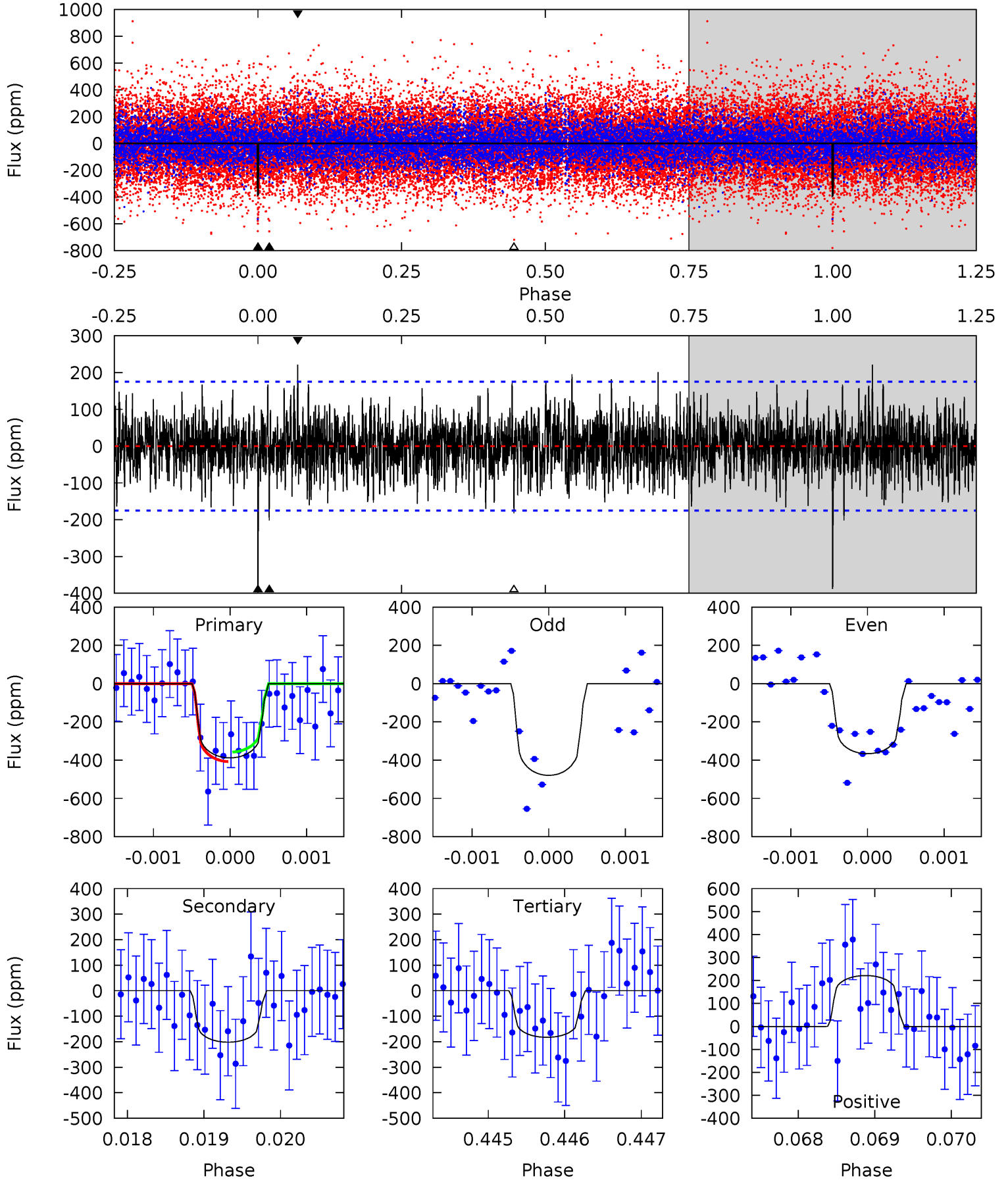
TCE 006387311-02 P=254.919827 Days $T_0=261.671150$ (BKJD)



DV Model-Shift Uniqueness Test

006387311-02, P = 254.893868 Days, E = 6.854818 Days

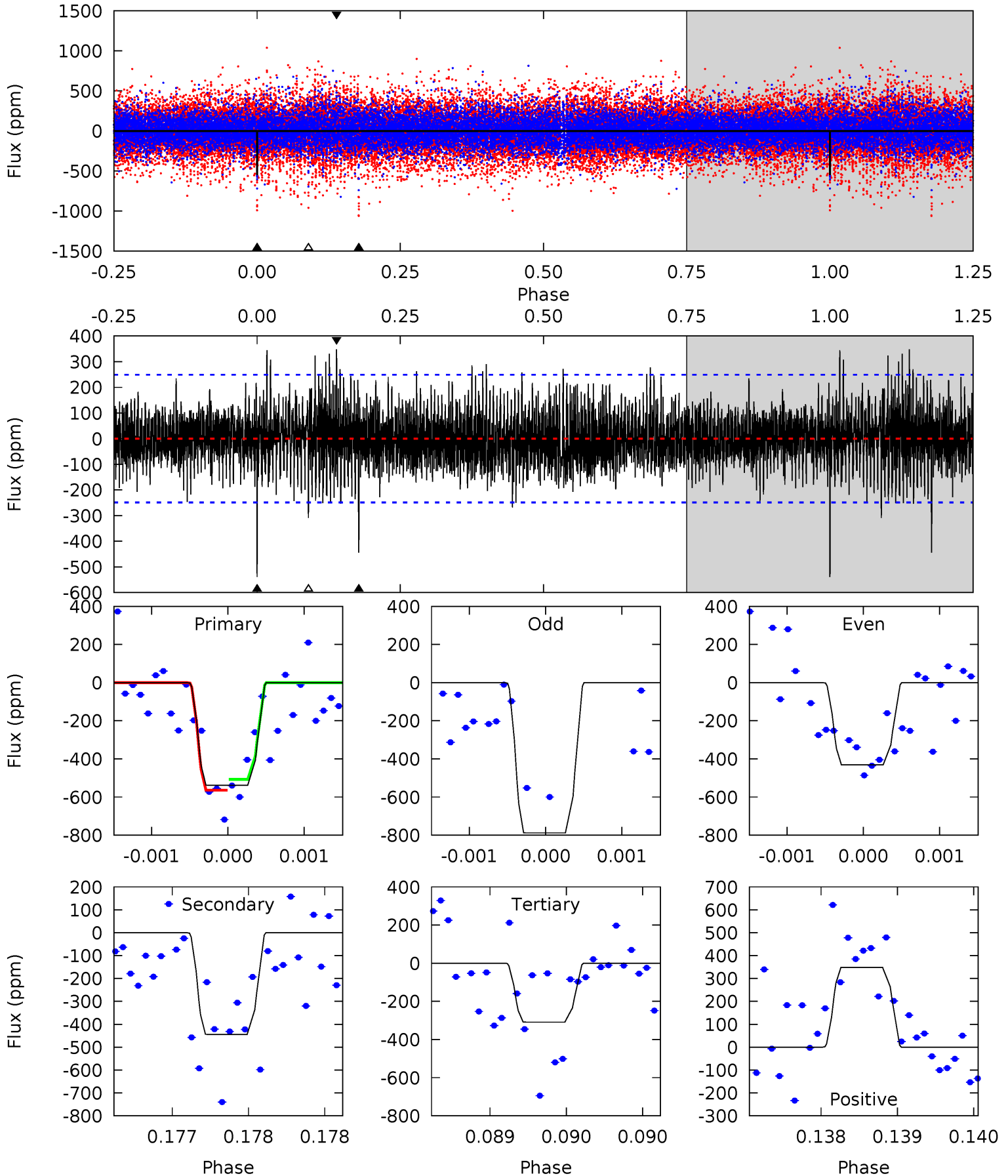
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	6.27	5.68	6.89	5.45	3.29	1.72	6.38	5.18	0.59	-0.61	1.43	0.91	0.36	0.76



Alt Model-Shift Uniqueness Test

006387311-02, P = 254.919827 Days, E = 6.751323 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	9.88	6.86	7.74	5.53	3.41	1.95	5.10	4.22	3.02	2.14	3.61	1.09	0.39	0.63



Stellar Parameters For KIC 006387311

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6190^{+186}_{-204}	$3.552^{+0.376}_{-0.117}$	$-0.400^{+0.350}_{-0.300}$	$3.364^{+0.599}_{-1.398}$	$1.470^{+0.208}_{-0.386}$	$0.054^{+0.157}_{-0.020}$
	+3%/-3%	+11%/-3%	+87%/-75%	+18%/-42%	+14%/-26%	+288%/-37%
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 006387311-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-202 ± 32	$6.76^{+3.64}_{-3.70}$	726^{+48}_{-77}	5304^{+2130}_{-881}	1987^{+7052}_{-1195}
Alt.	-444 ± 45	$8.78^{+4.27}_{-3.87}$	722^{+53}_{-73}	5561^{+1725}_{-744}	2455^{+5374}_{-1331}

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 $A_{obs} \gg 1.0$

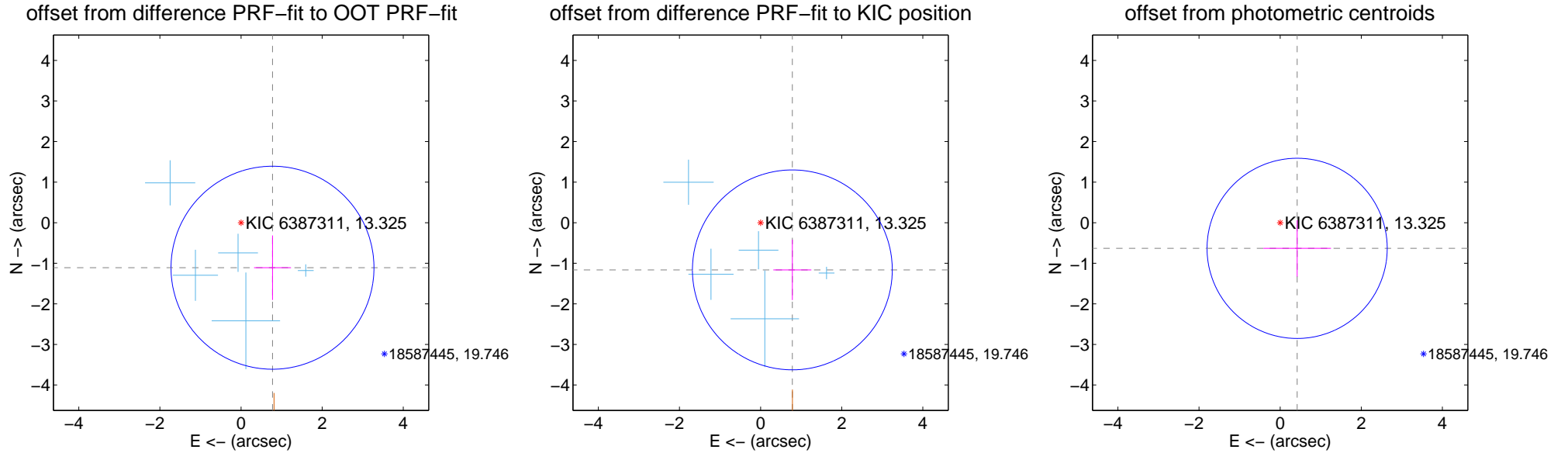
DV Centroid Data

Supplemental centroid analysis for 006387311-02. Kepler magnitude: 13.32. Transit SNR 7.89

There are 5 quarters with good PRF difference image offsets

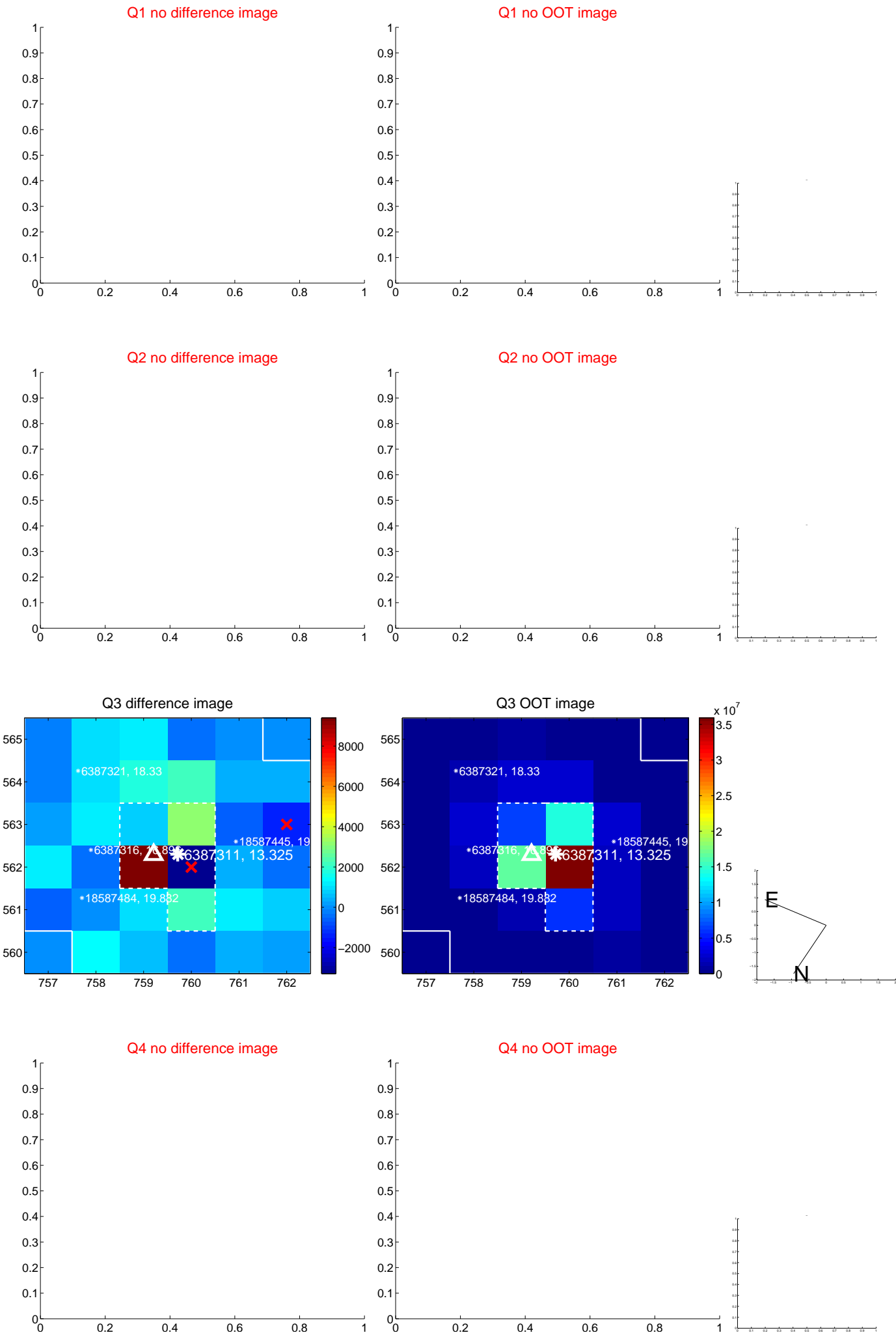
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.354 ± 0.834	1.62	-0.776 ± 0.456	-1.110 ± 0.795
PRF-fit source offset from KIC position	1.402 ± 0.821	1.71	-0.783 ± 0.468	-1.163 ± 0.744
photometric centroid source offset	0.76 ± 0.74	1.02	-0.42 ± 0.83	-0.63 ± 0.70

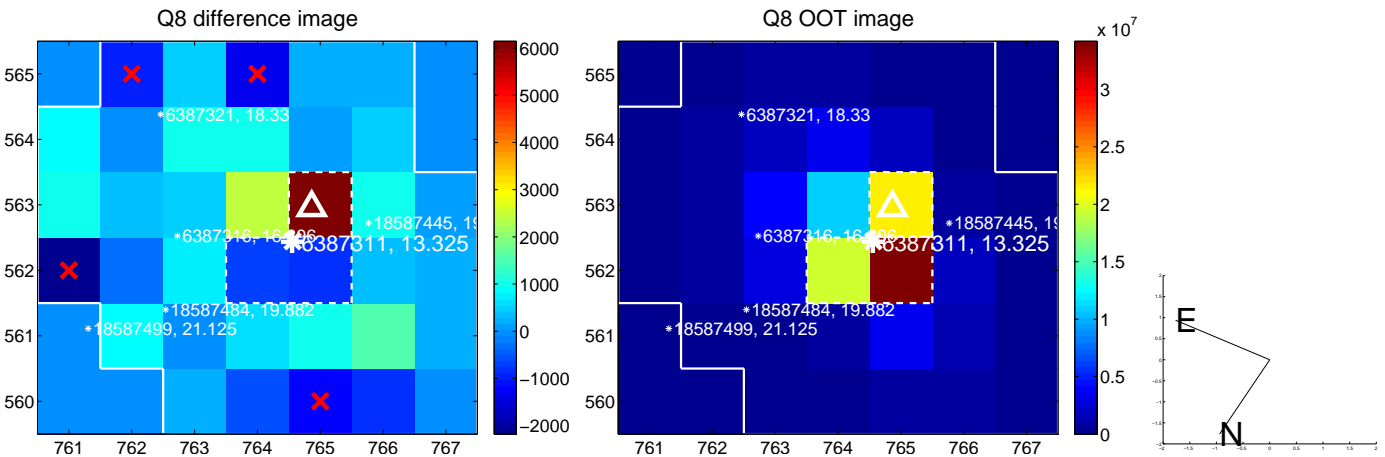
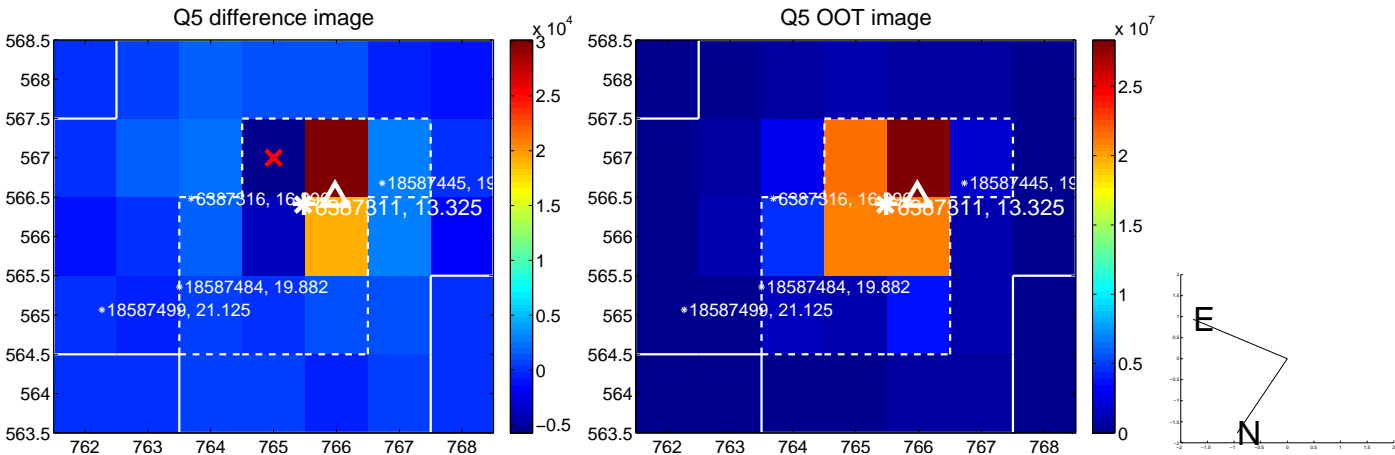


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

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



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



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

Q9 no difference image



Q9 no OOT image



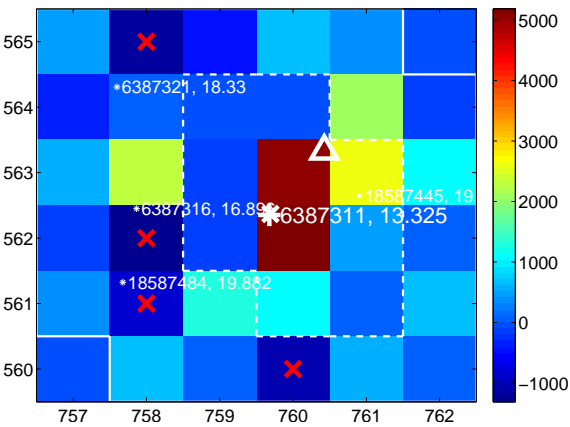
Q10 no difference image



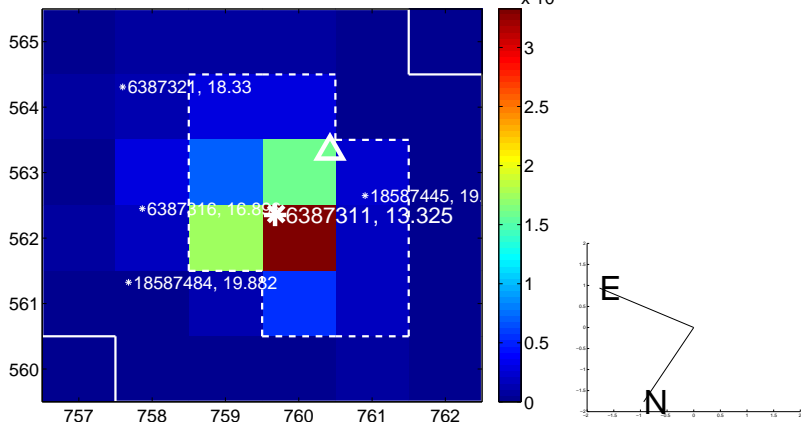
Q10 no OOT image



Q11 difference image. Poor Quality



Q11 OOT image



Q12 no difference image



Q12 no OOT image



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

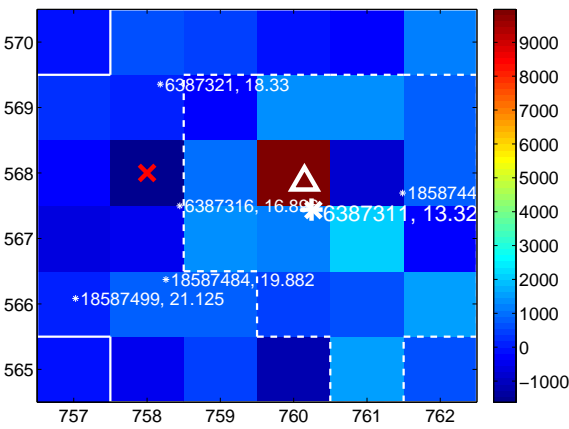
Q13 no difference image



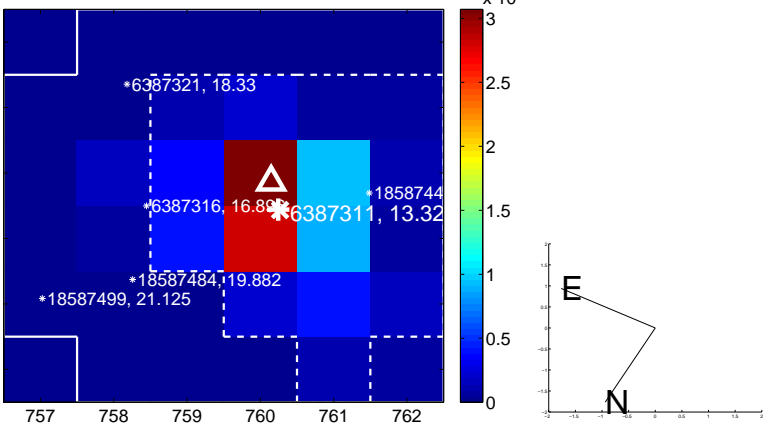
Q13 no OOT image



Q14 difference image



Q14 OOT image



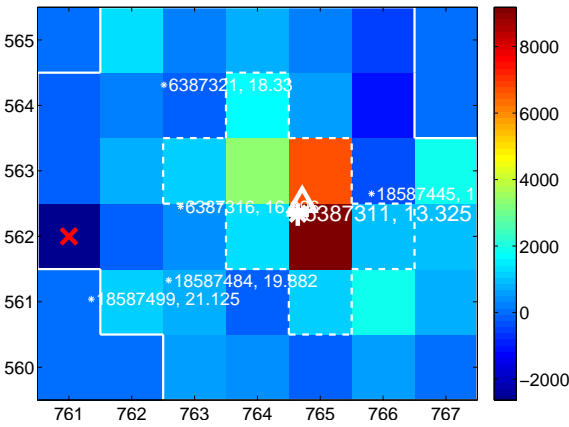
Q15 no difference image



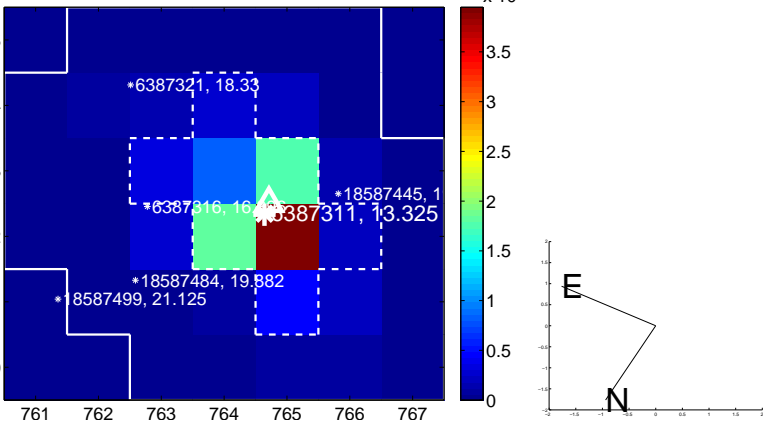
Q15 no OOT image



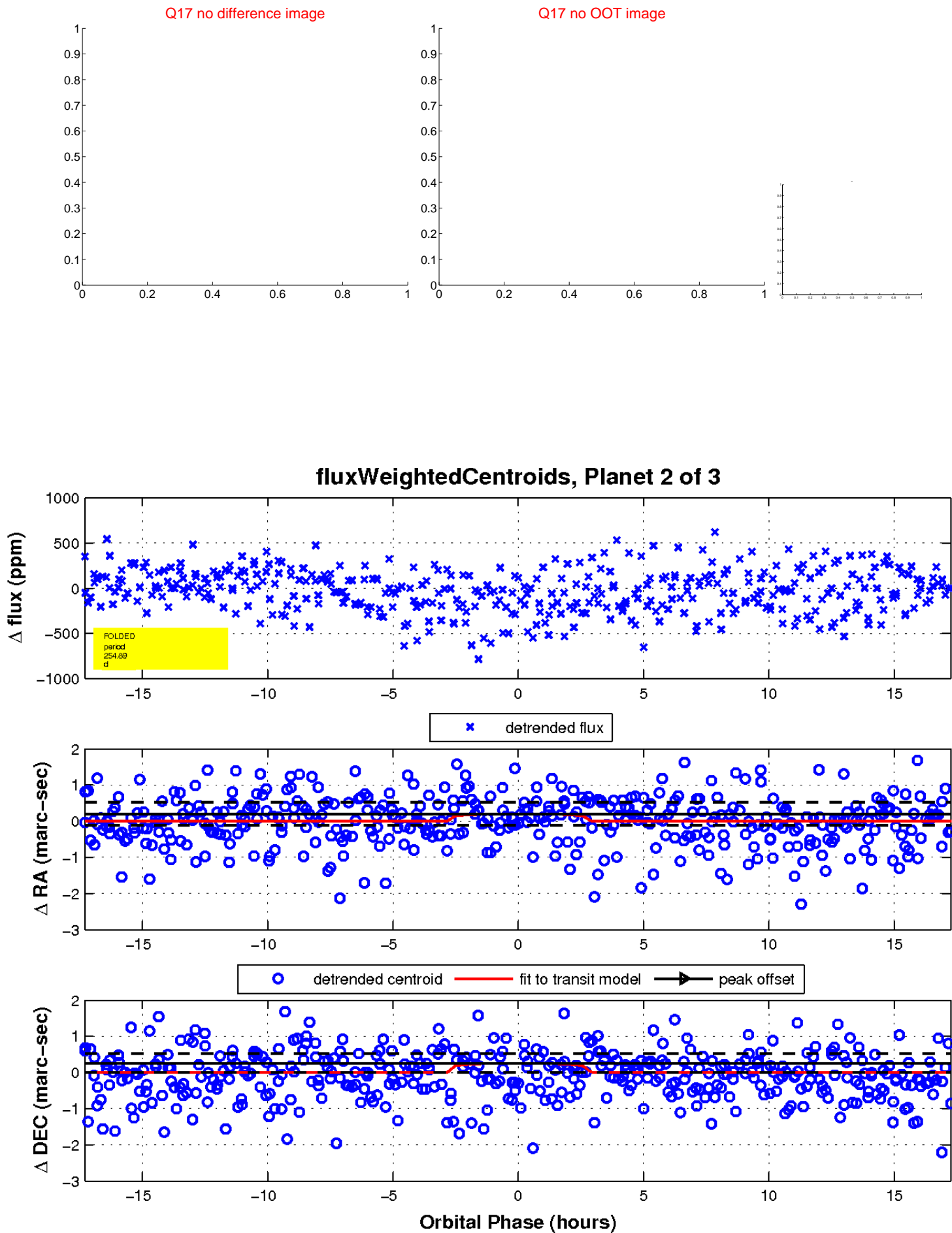
Q16 difference image



Q16 OOT image

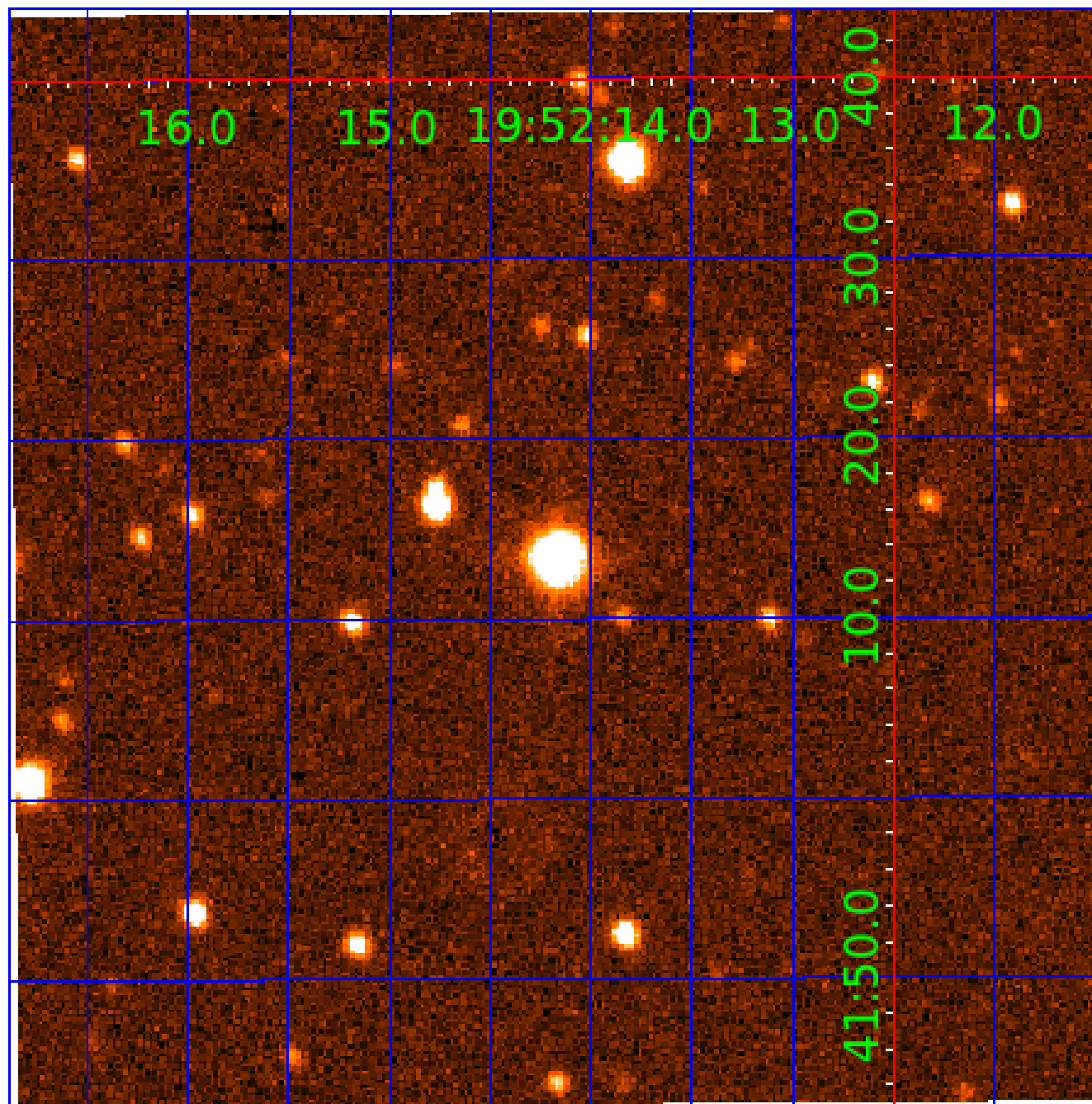


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006387311

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})
006387311-01	OBS	No	1.587243	132.929804	16.8	6.308	8.9	5.5	3.36	6190	1.65	16219.46
006387311-02	OBS	No	254.893868	261.748686	368.4	5.783	8.2	7.9	3.36	6190	7.24	18.58
006387311-03	OBS	No	125.976951	150.687442	198.6	8.245	7.8	5.5	3.36	6190	5.22	47.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006387311-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006387311-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT
006387311-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST

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

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

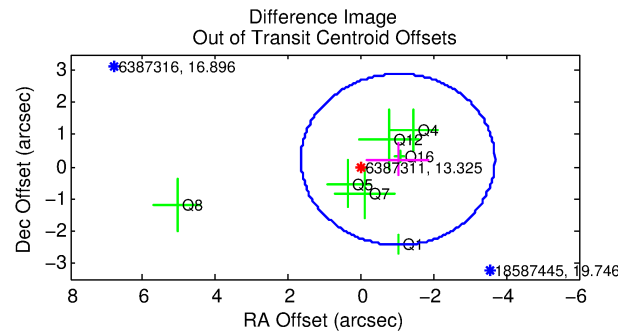
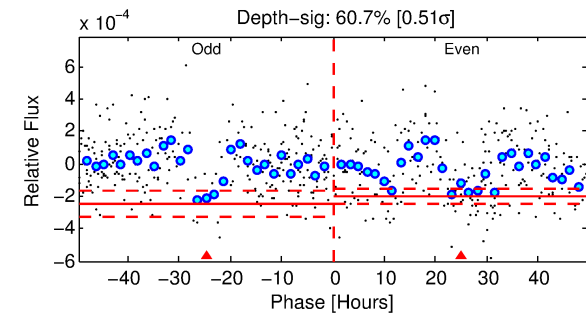
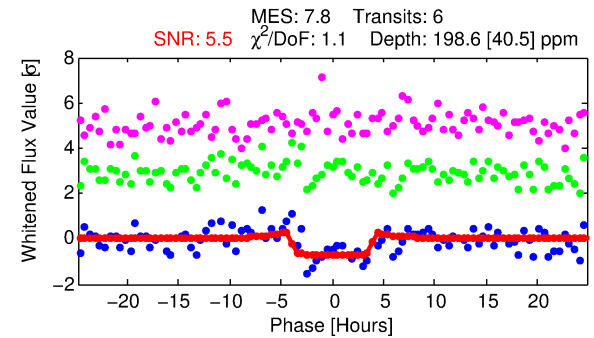
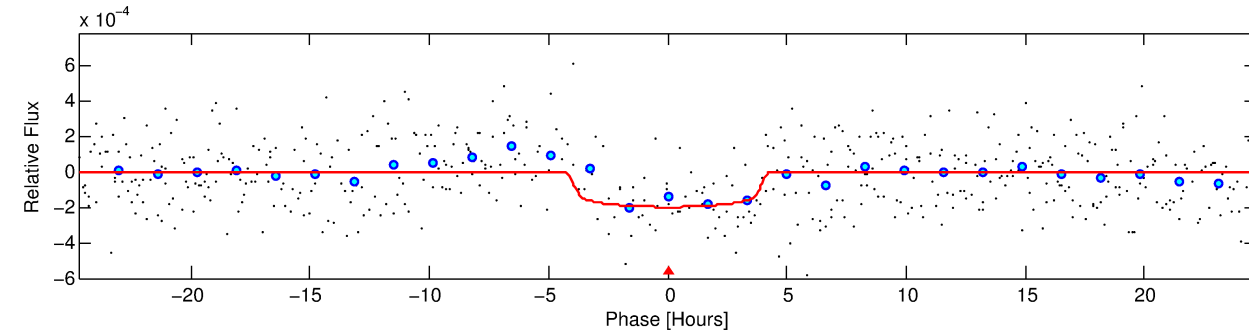
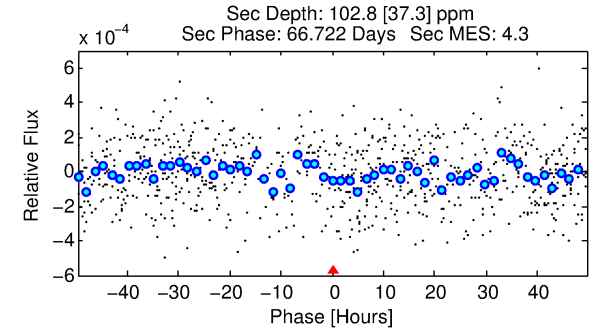
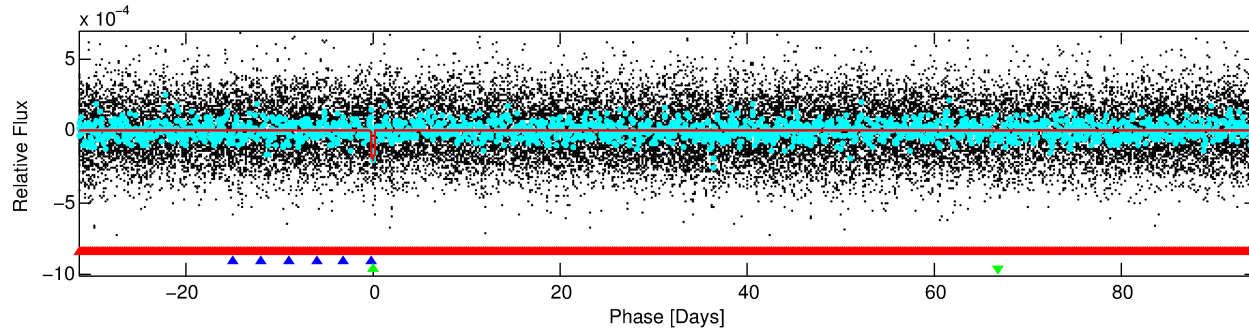
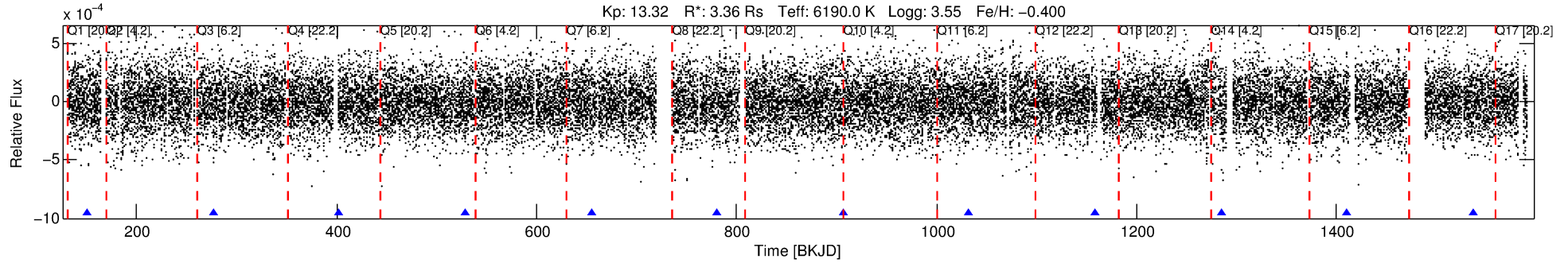
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006387311-03

No Significant Match Found

DV One-Page Summary

KIC: 6387311 Candidate: 3 of 3 Period: 125.977 d



DV Fit Results:

Period = 125.97695 [0.00274] d
Epoch = 150.6874 [0.0172] BKJD
Rp/R* = 0.0142 [0.0074]
a/R* = 73.82 [200.09]
b = 0.79 [1.28]
Seff = 47.55 [31.08]
Teq = 670 [109] K
Rp = 5.23 [3.49] Re
a = 0.5595 [0.2238] AU
Ag = 648.19 [828.09] [0.78σ]
Teffp = 5224 [1454] K [3.12σ]

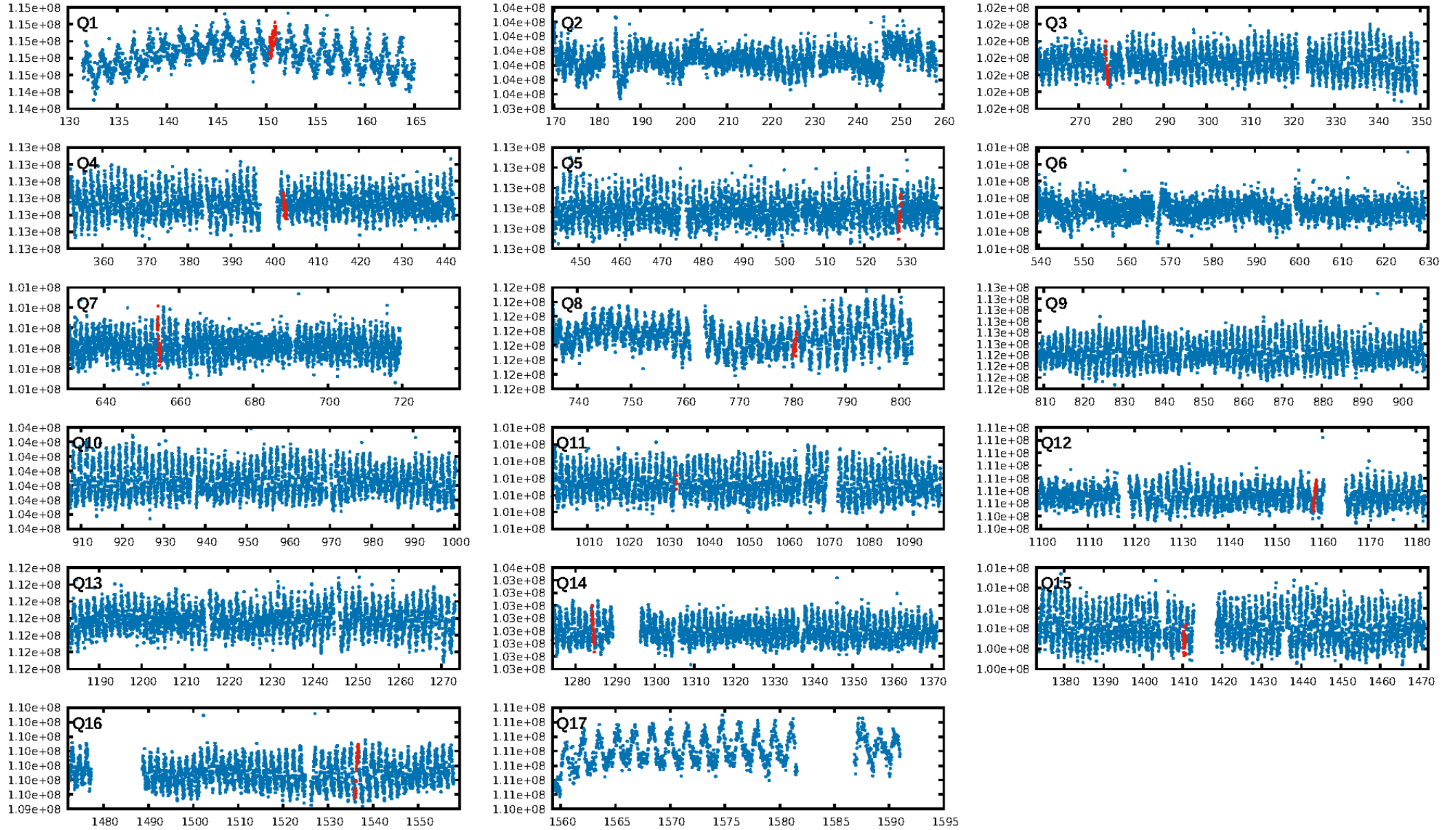
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [287.58σ]
LongPeriod-sig: 100.0% [307.24σ]
ModelChiSquare2-sig: 38.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.77e-10
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.1138
Centroid-sig: 3.2%
Centroid-so: 1.419 arcsec [1.39σ]
OotOffset-rm: 1.039 arcsec [1.17σ]
KicOffset-rm: 1.072 arcsec [1.49σ]
OotOffset-st: 0/1/4/2 [7]
KicOffset-st: 0/1/4/2 [7]
DiffImageQuality-fgm: 0.29 [2/7]
DiffImageOverlap-fno: 0.10 [1/10]

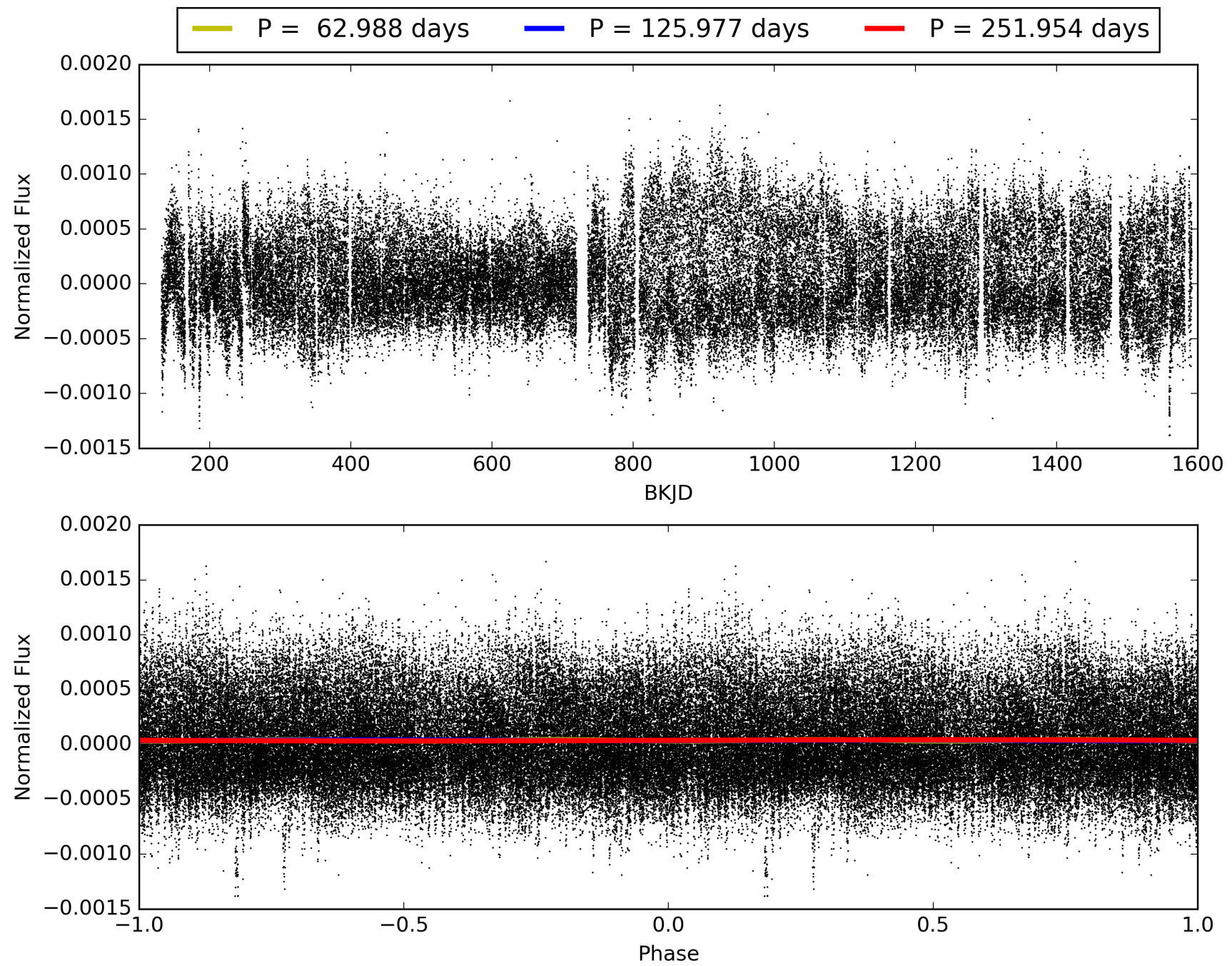
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:06:00 Z

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

TCE 006387311-03, PDC Light Curves

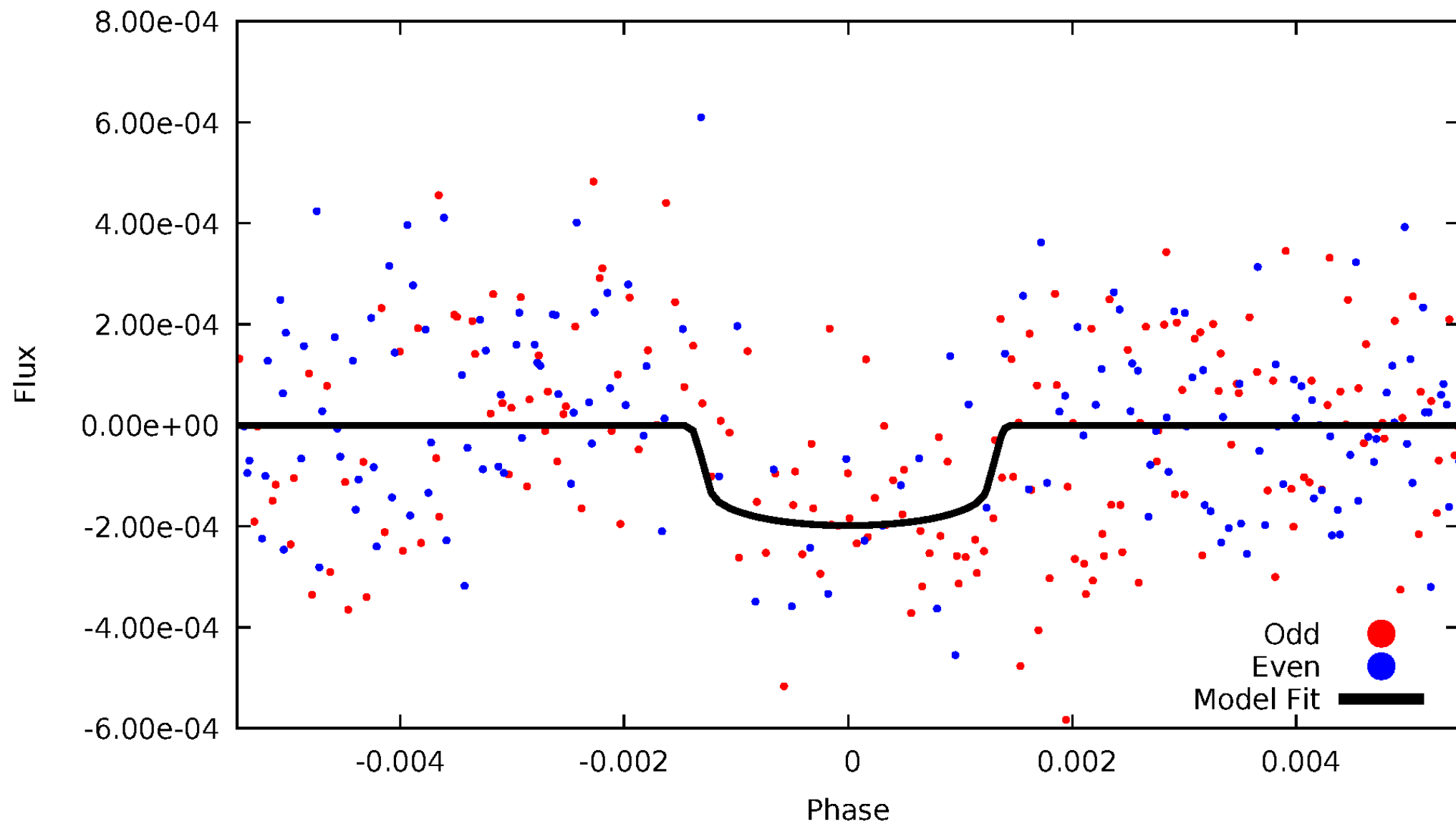


TCE 006387311-03



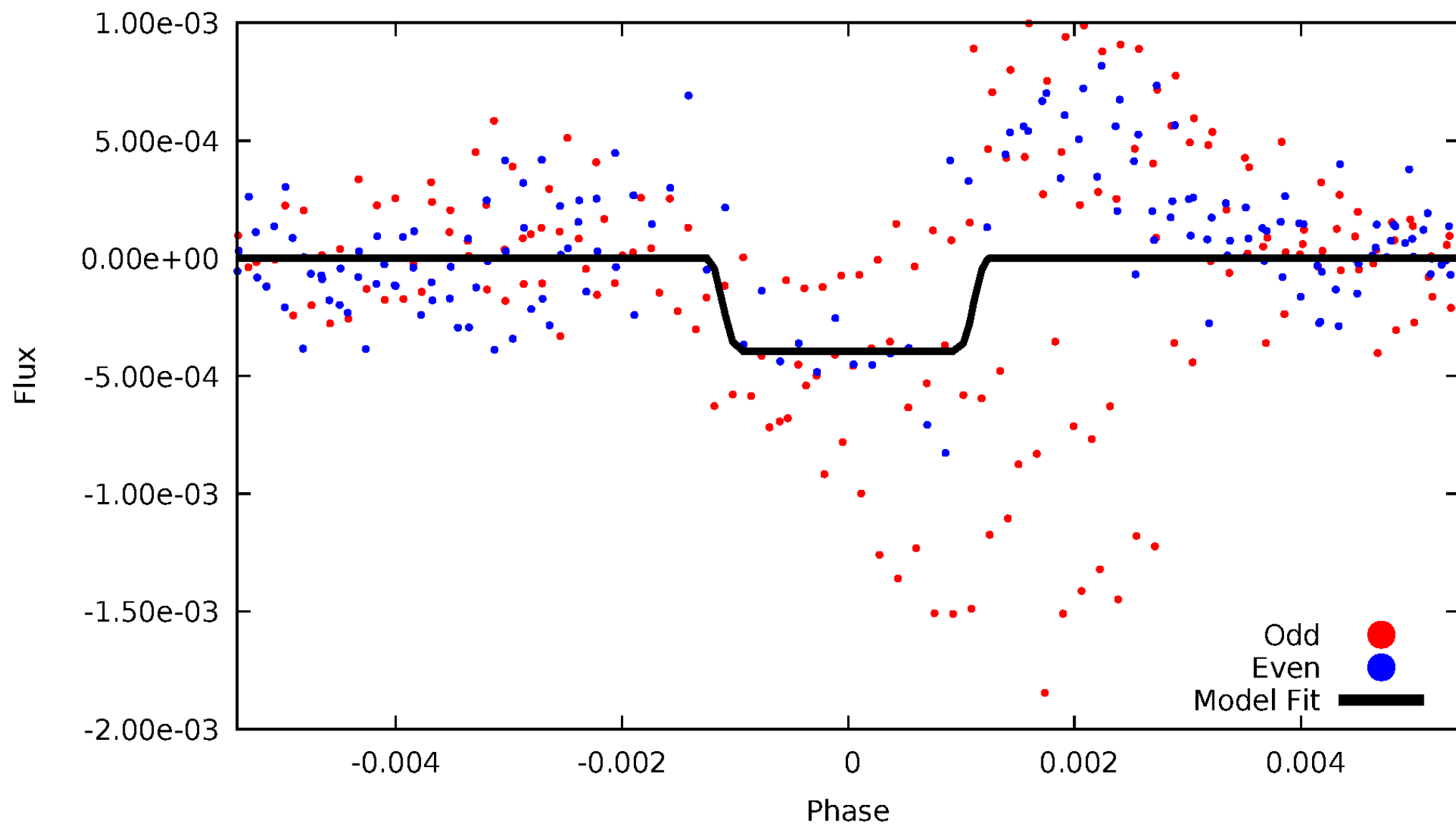
DV Odd/Even

TCE 006387311-03

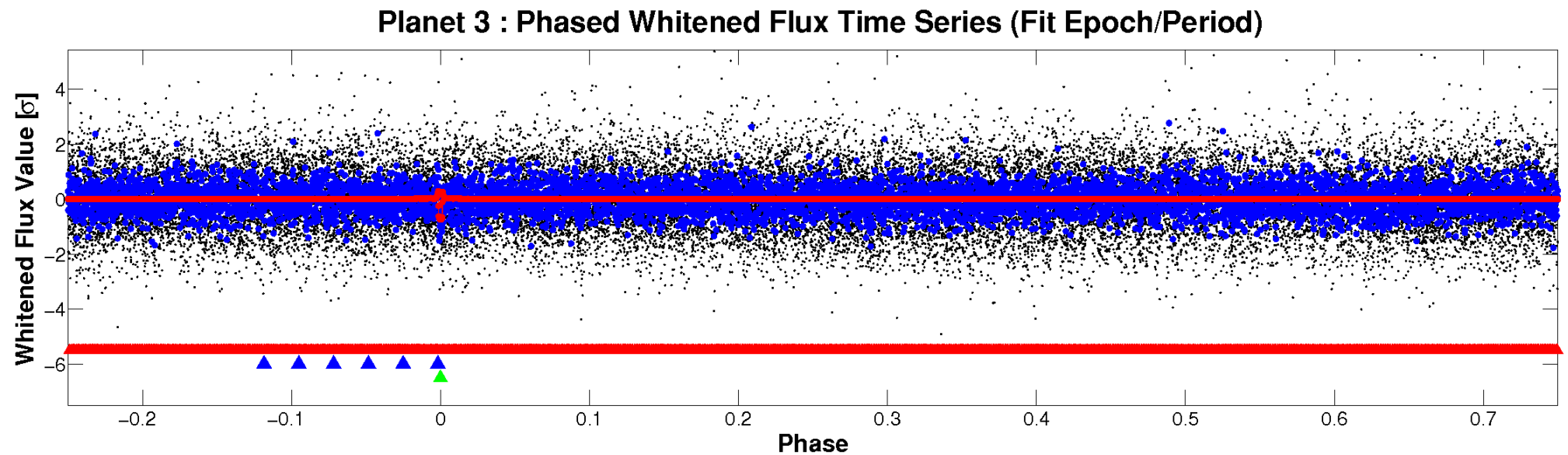
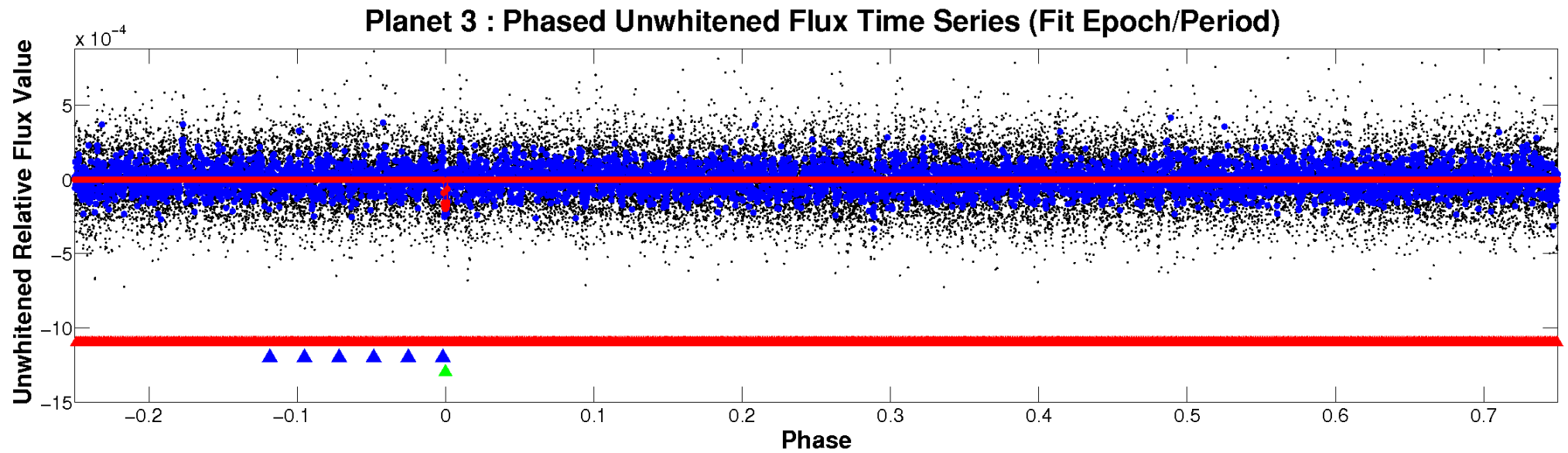


ALT Odd/Even

TCE 006387311-03

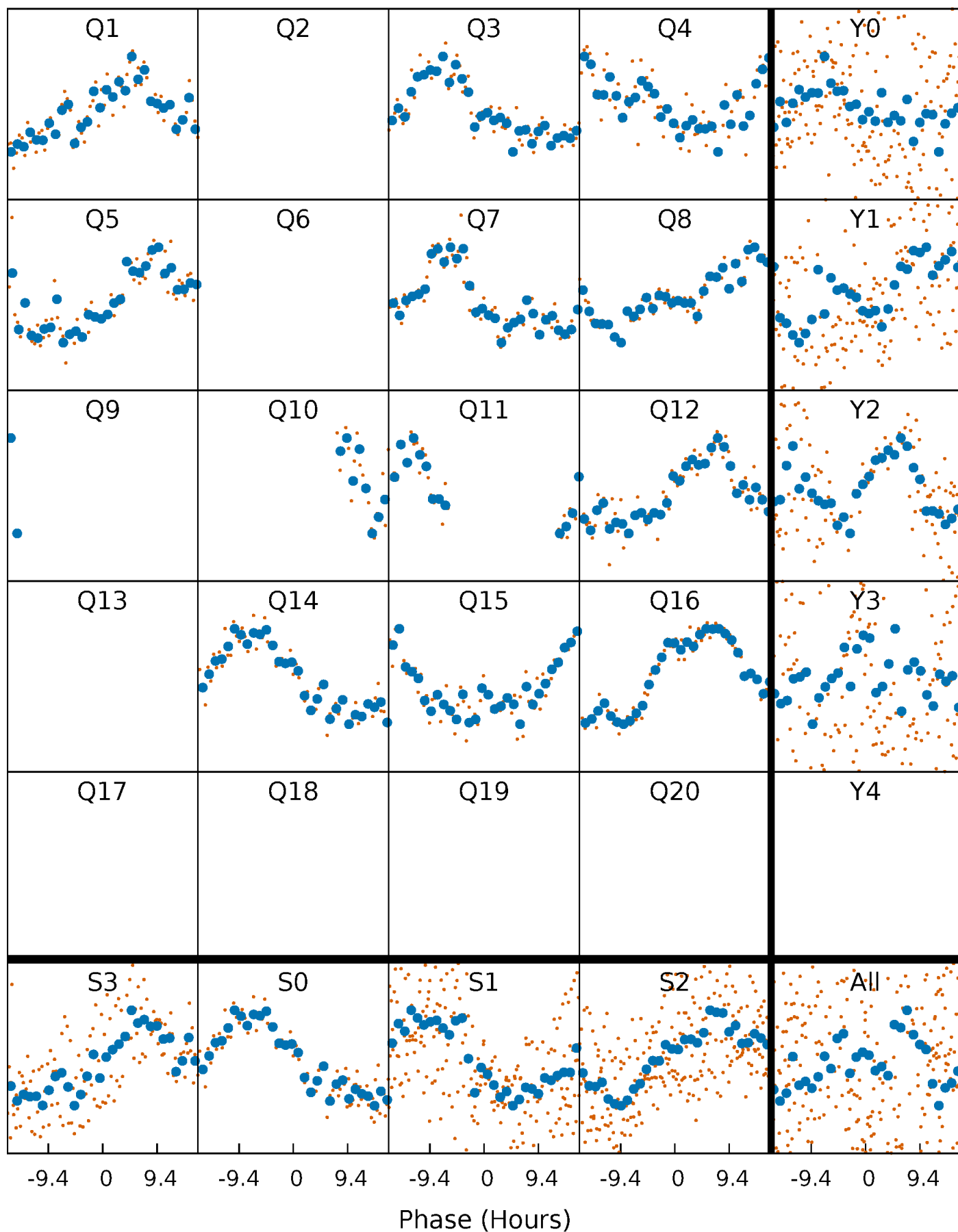


Non-Whitened Vs. Whitened Light Curve



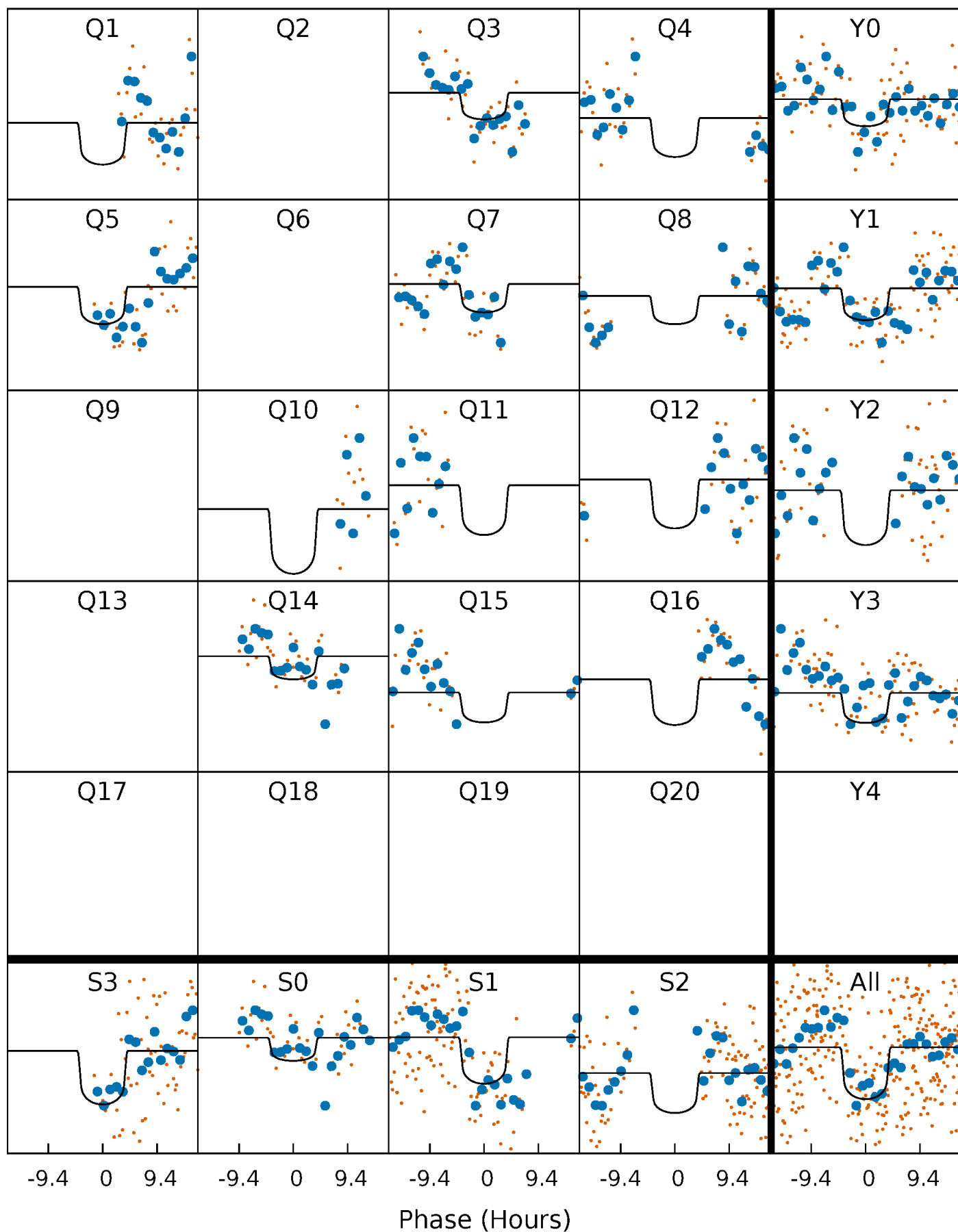
PDC Quarter-Phased Transit Curves

TCE 006387311-03 P=125.976951 Days $T_0=150.687443$ (BKJD)



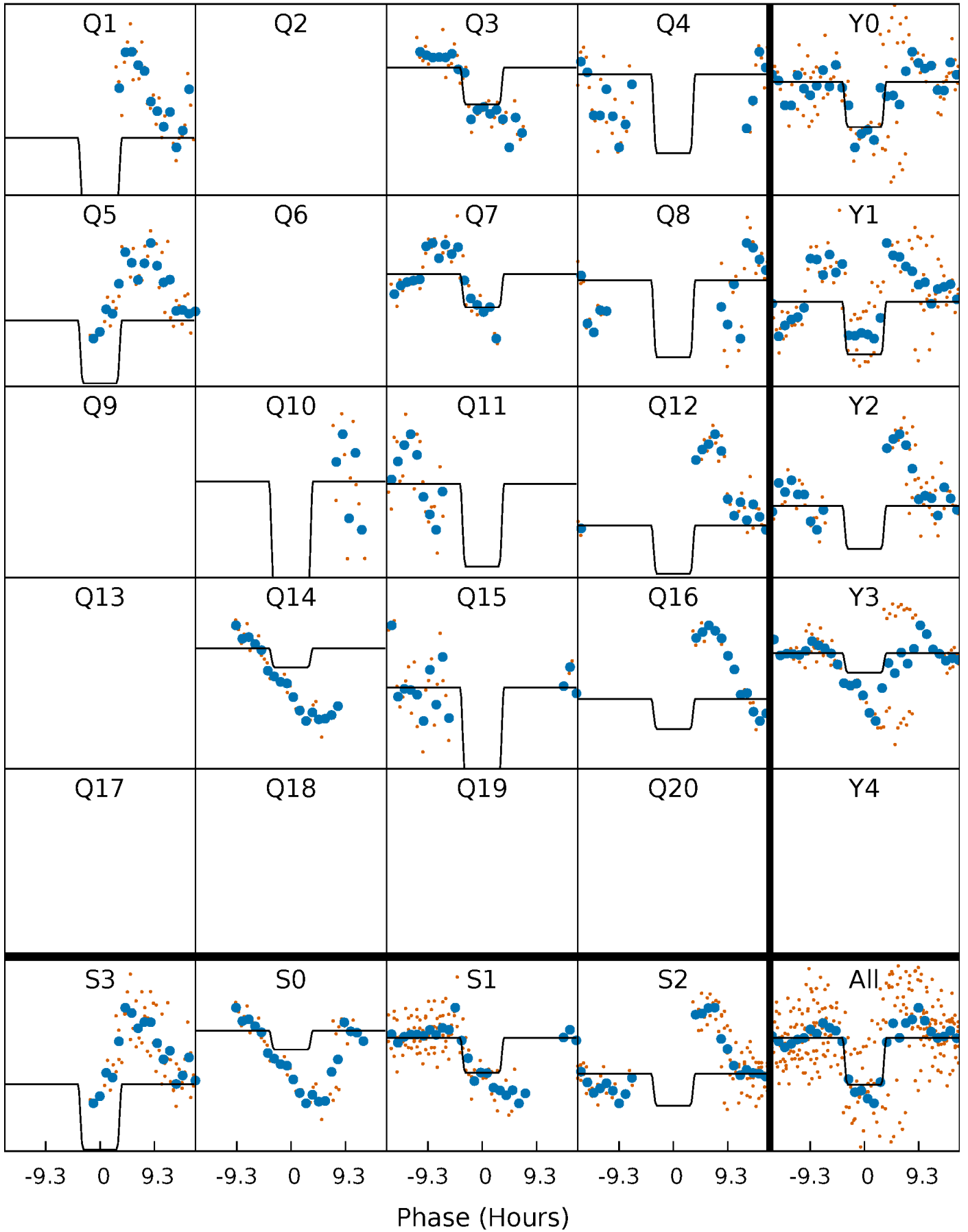
DV Quarter-Phased Transit Curves

TCE 006387311-03 P=125.976951 Days $T_0=150.687443$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

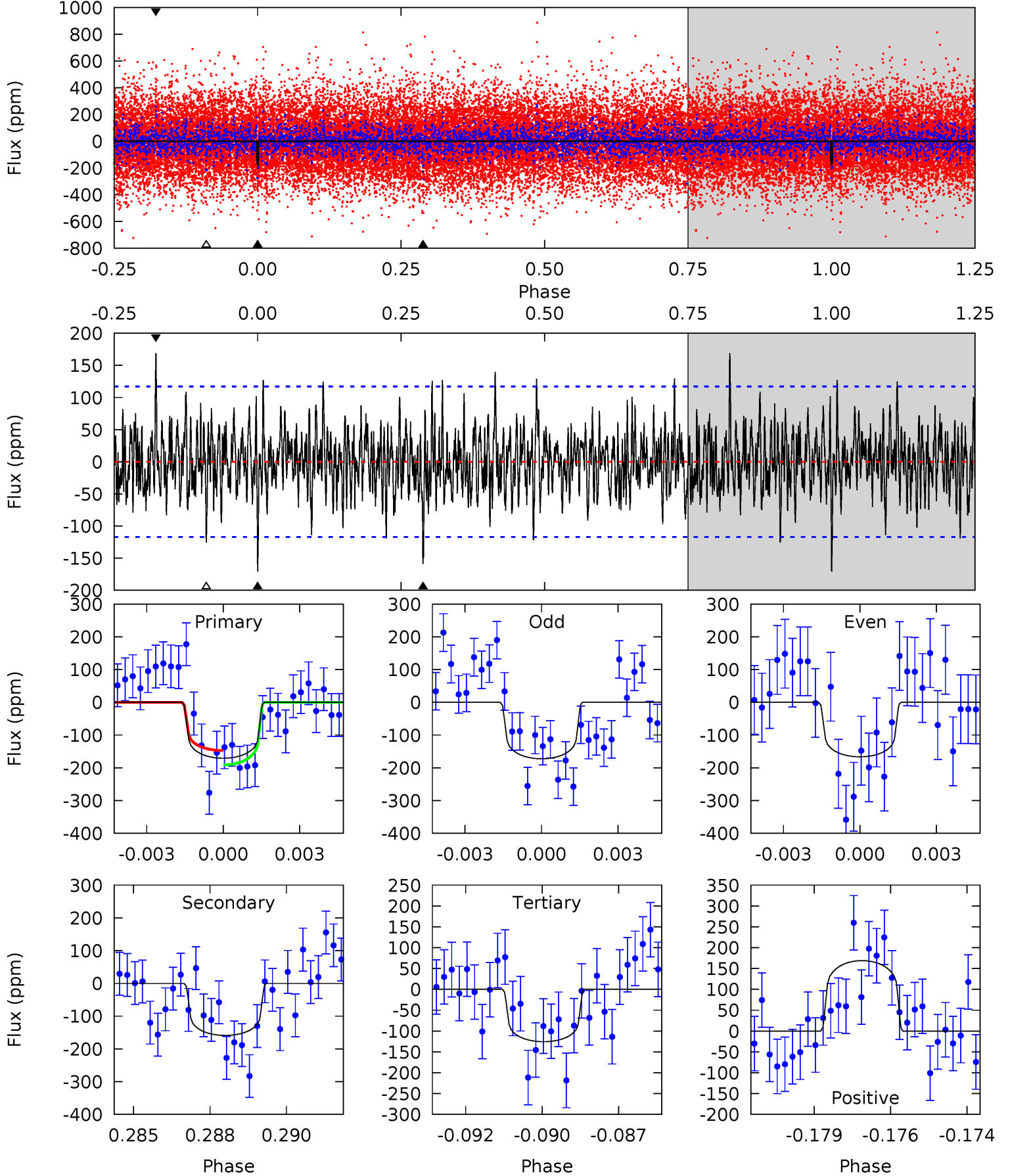
TCE 006387311-03 P=125.979709 Days $T_0=150.688623$ (BKJD)



DV Model-Shift Uniqueness Test

006387311-03, P = 125.976951 Days, E = 24.710492 Days

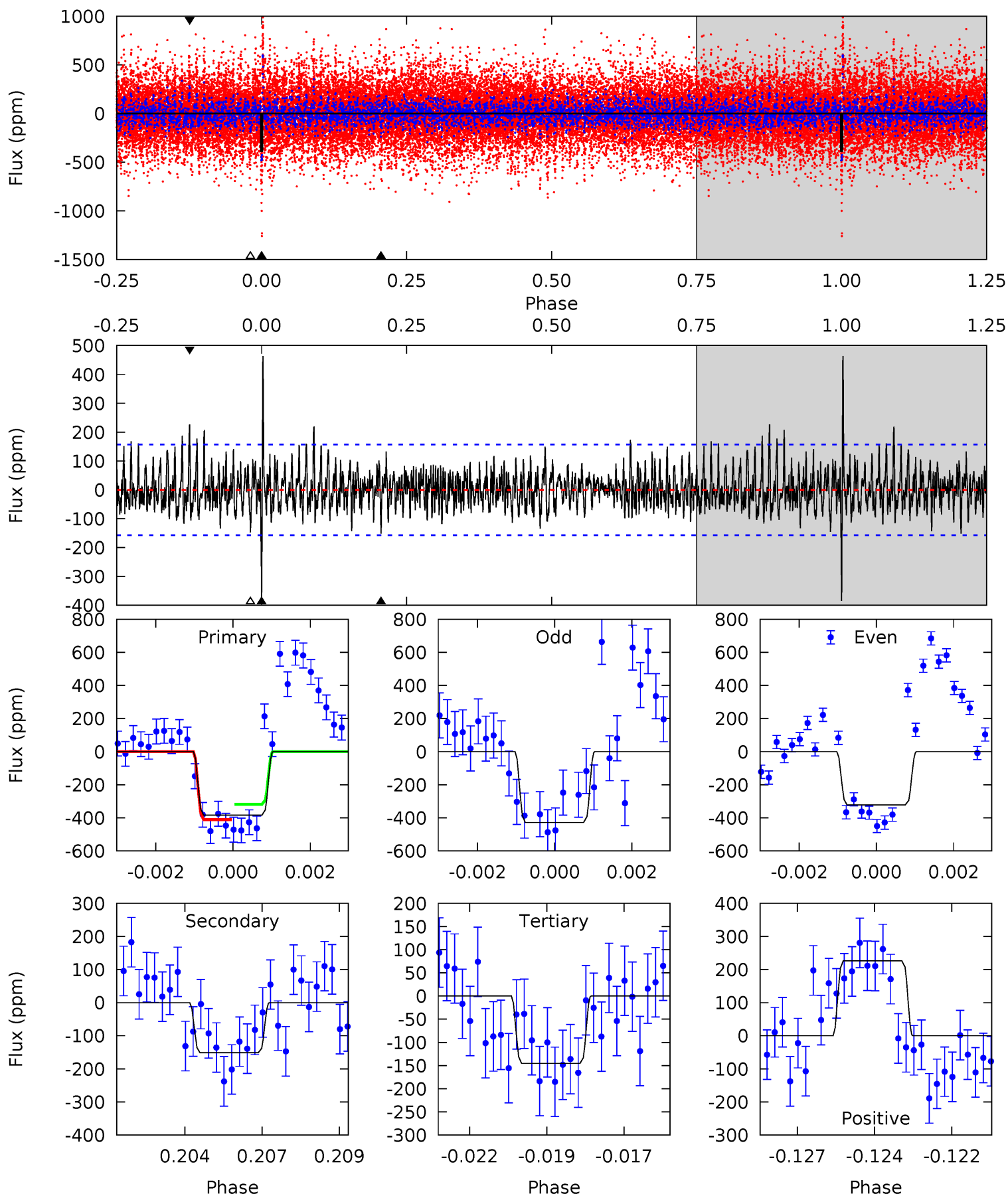
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.68	7.15	5.65	7.60	5.27	3.00	1.80	2.03	0.09	1.49	-0.45	0.12	0.71	0.50	0.98



Alt Model-Shift Uniqueness Test

006387311-03, $P = 125.979709$ Days, $E = 24.708914$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	5.08	4.90	7.63	5.29	3.03	1.86	8.03	5.30	0.19	-2.55	1.63	0.71	0.55	1.54



Stellar Parameters For KIC 006387311

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6190^{+186}_{-204}	$3.552^{+0.376}_{-0.117}$	$-0.400^{+0.350}_{-0.300}$	$3.364^{+0.599}_{-1.398}$	$1.470^{+0.208}_{-0.386}$	$0.054^{+0.157}_{-0.020}$
	+3%/-3%	+11%/-3%	+87%/-75%	+18%/-42%	+14%/-26%	+288%/-37%
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 006387311-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-159 ± 22	$4.77^{+2.82}_{-2.35}$	918^{+65}_{-95}	5843^{+2456}_{-987}	1202^{+3427}_{-730}
Alt.	-151 ± 30	$6.62^{+3.34}_{-2.70}$	917^{+67}_{-106}	4944^{+1252}_{-669}	556^{+1124}_{-301}

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

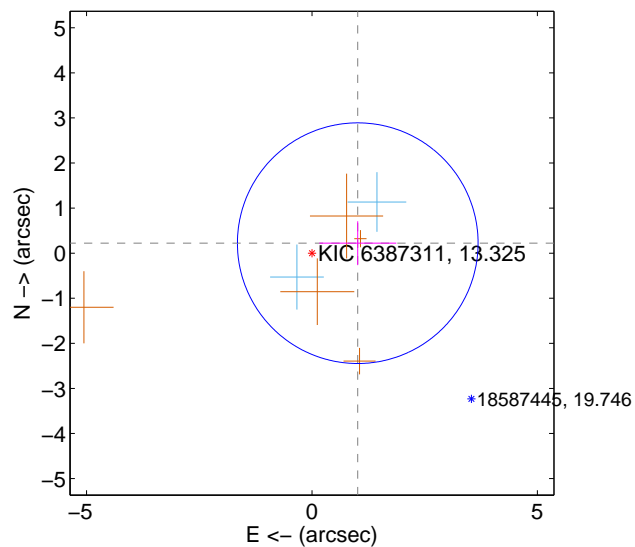
Supplemental centroid analysis for 006387311-03. Kepler magnitude: 13.32. Transit SNR 5.53

There are 2 quarters with good PRF difference image offsets

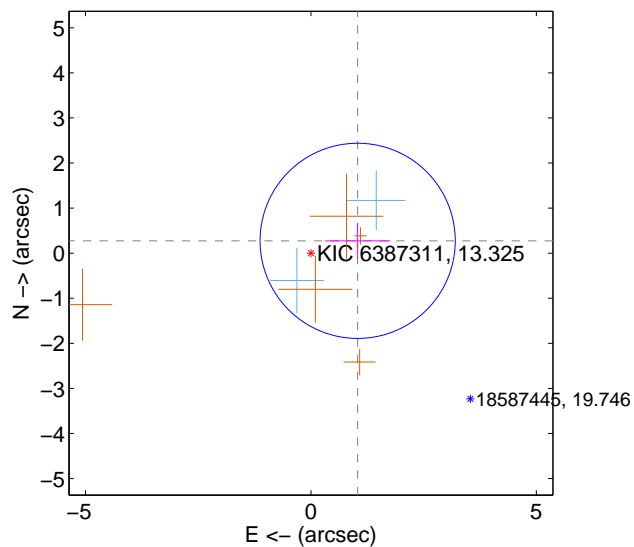
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.039 ± 0.890	1.17	-1.016 ± 0.854	0.222 ± 0.486
PRF-fit source offset from KIC position	1.072 ± 0.722	1.49	-1.036 ± 0.723	0.274 ± 0.397
photometric centroid source offset	1.42 ± 1.02	1.39	-1.19 ± 1.07	-0.77 ± 0.89

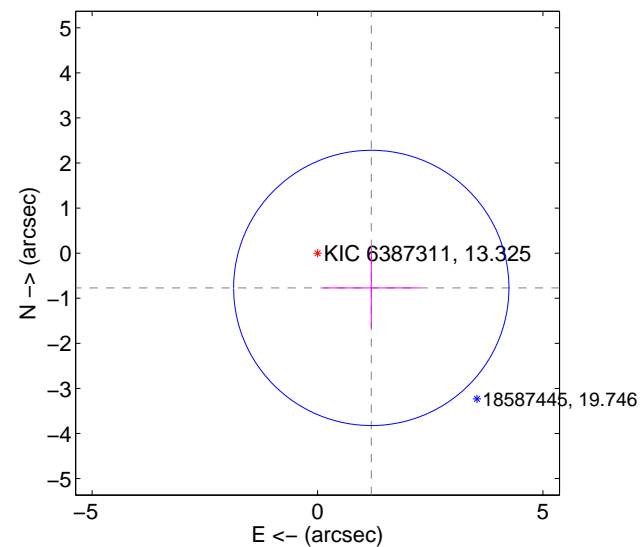
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

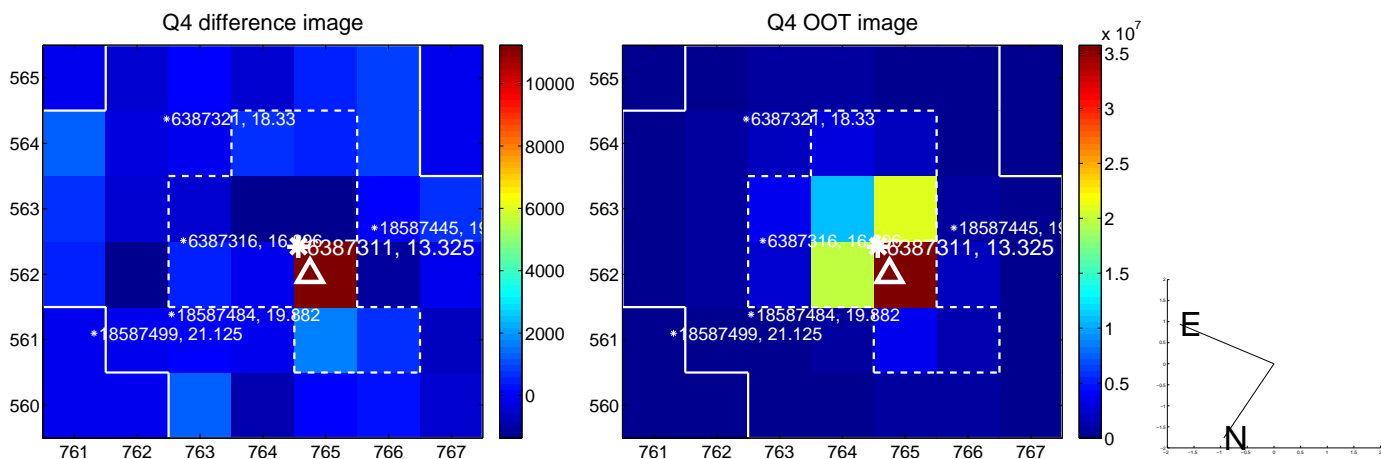
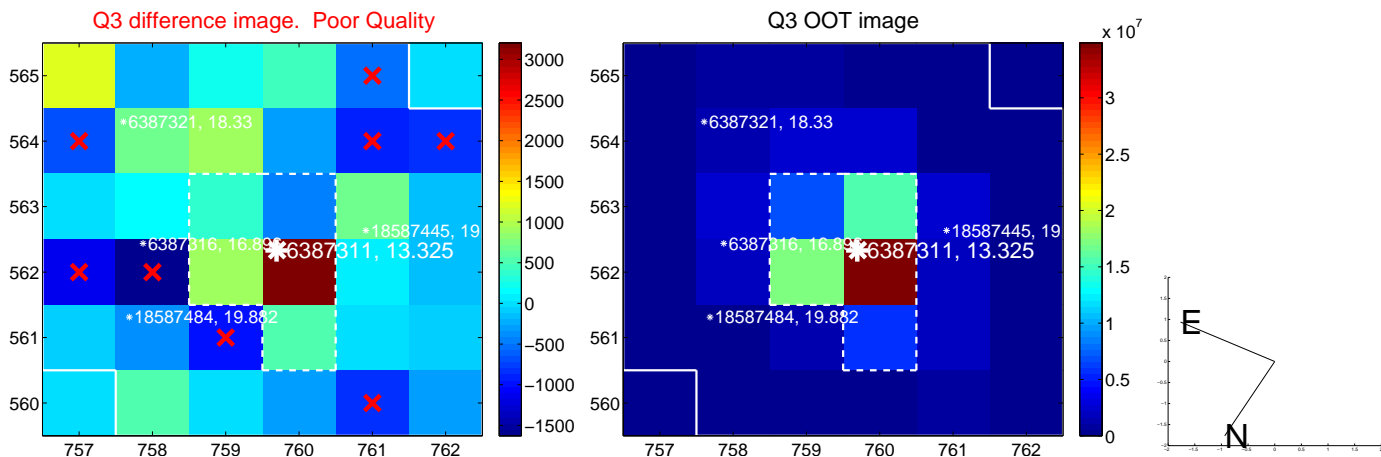
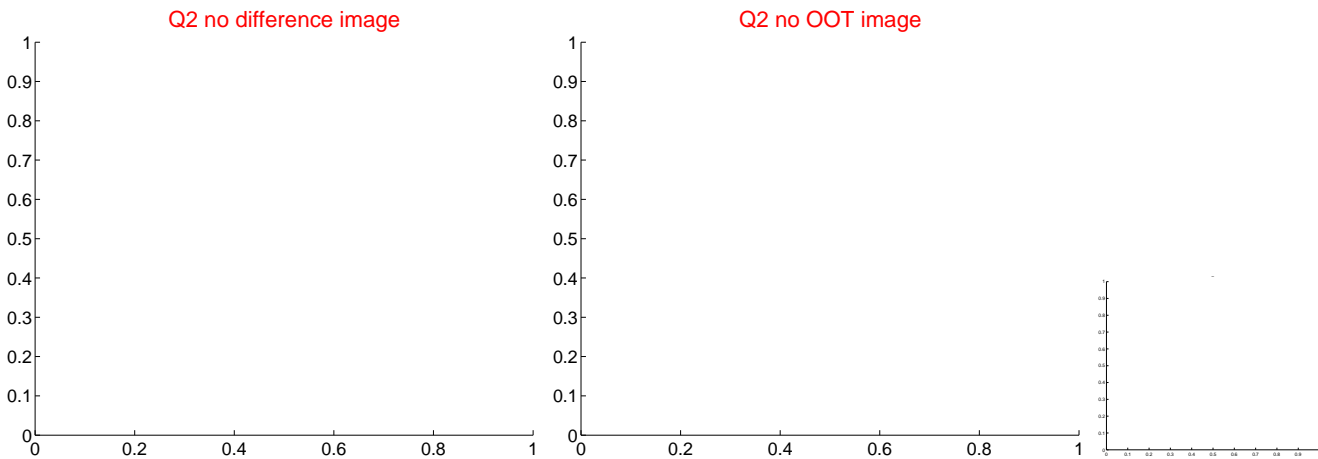
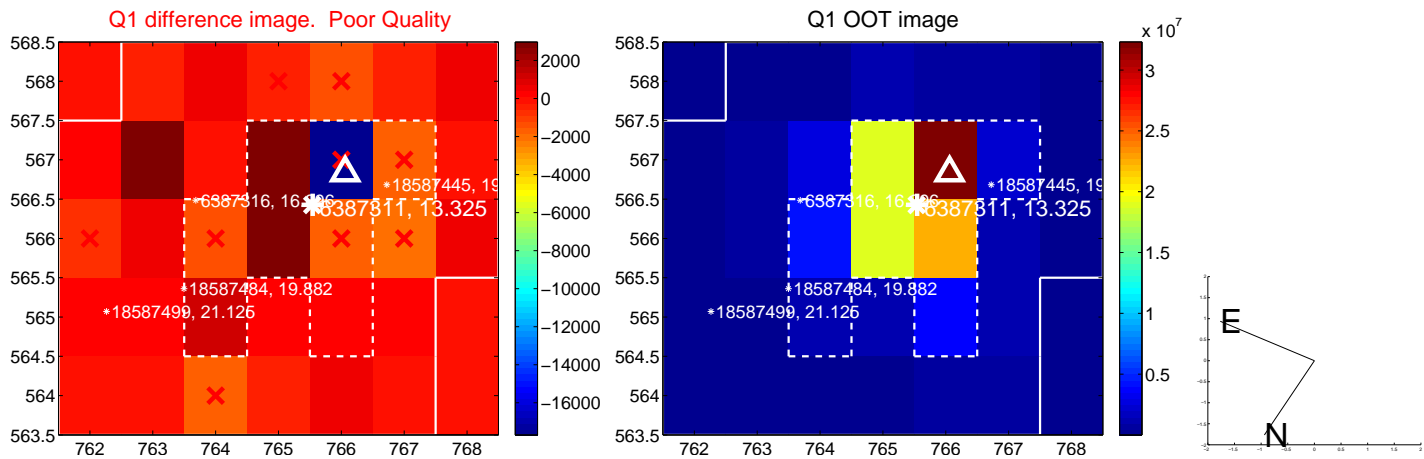


offset from photometric centroids

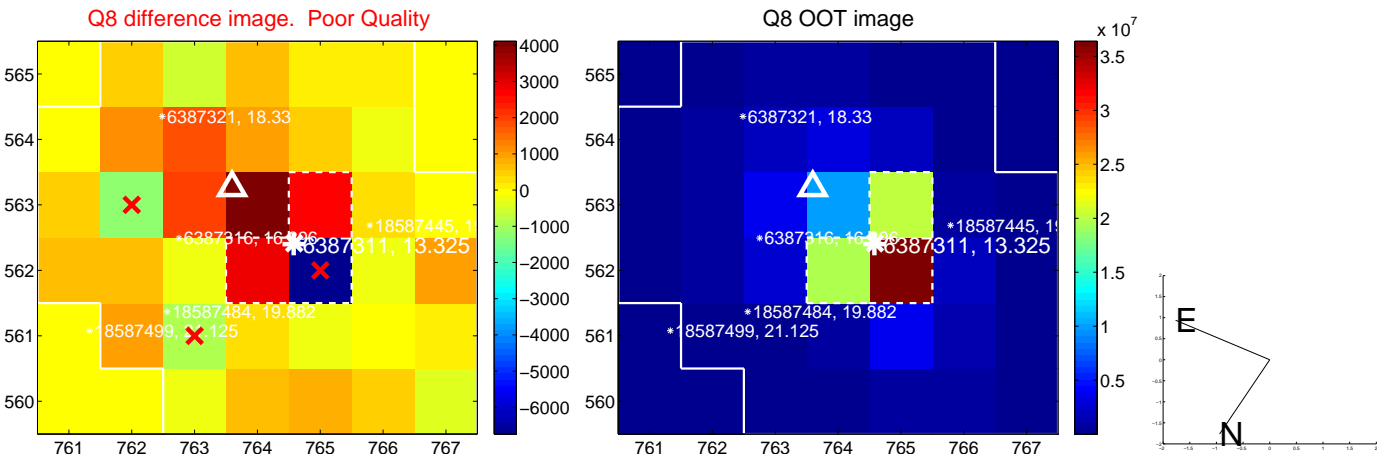
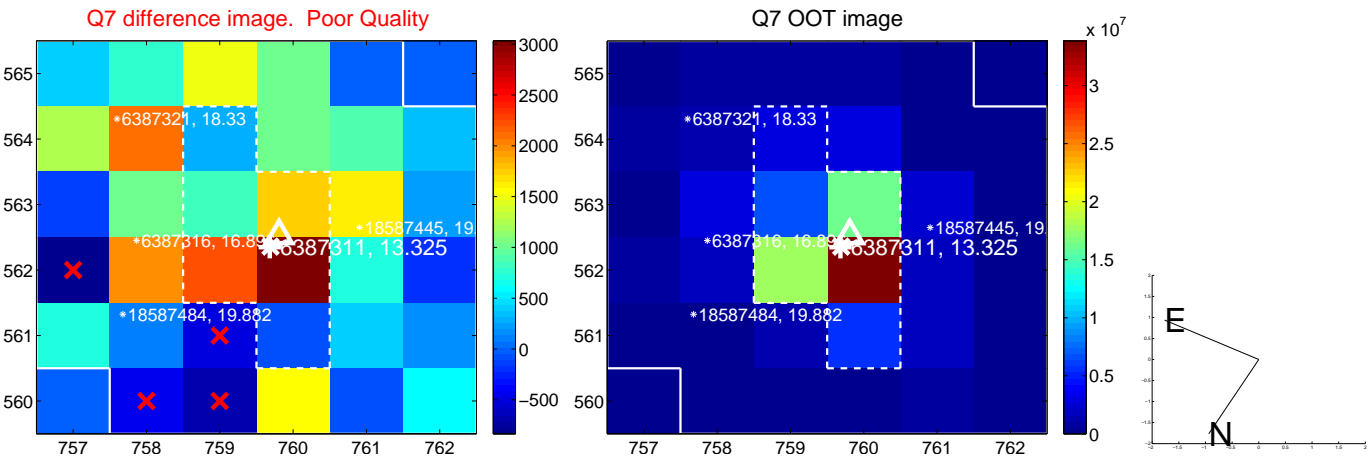
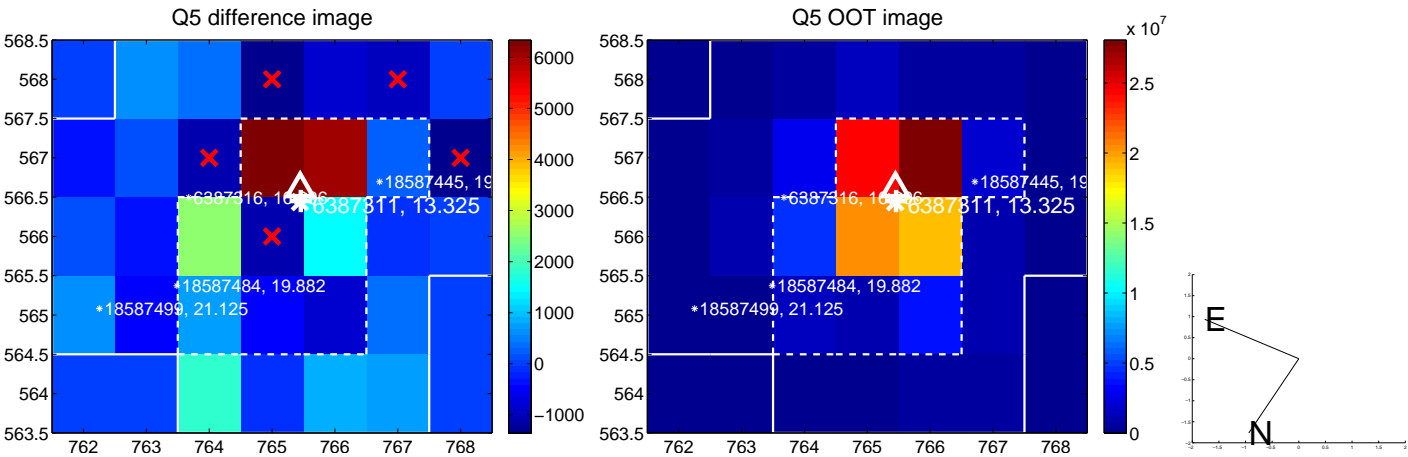


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

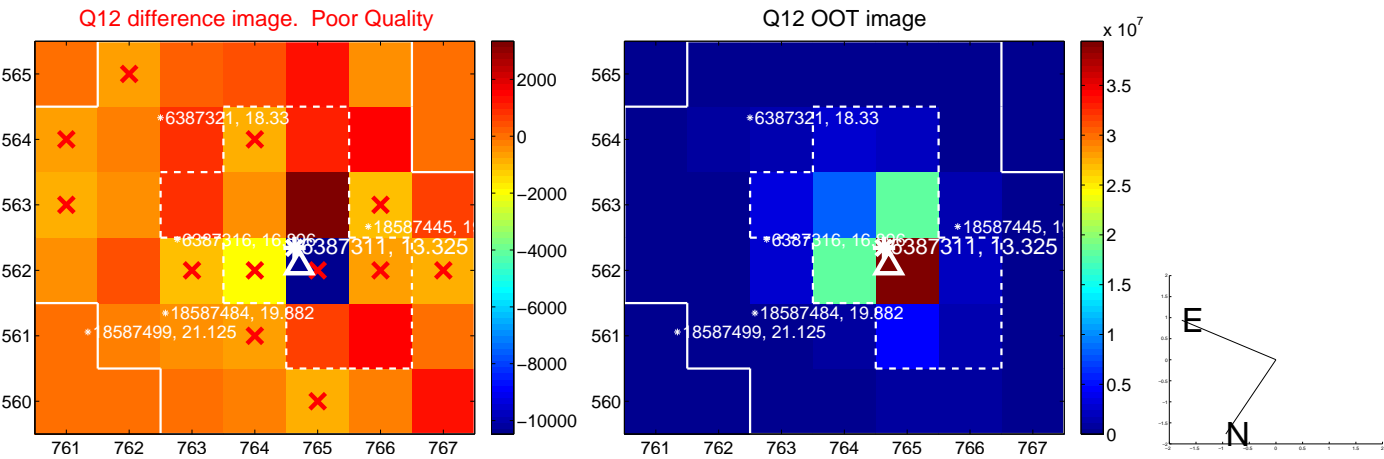
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



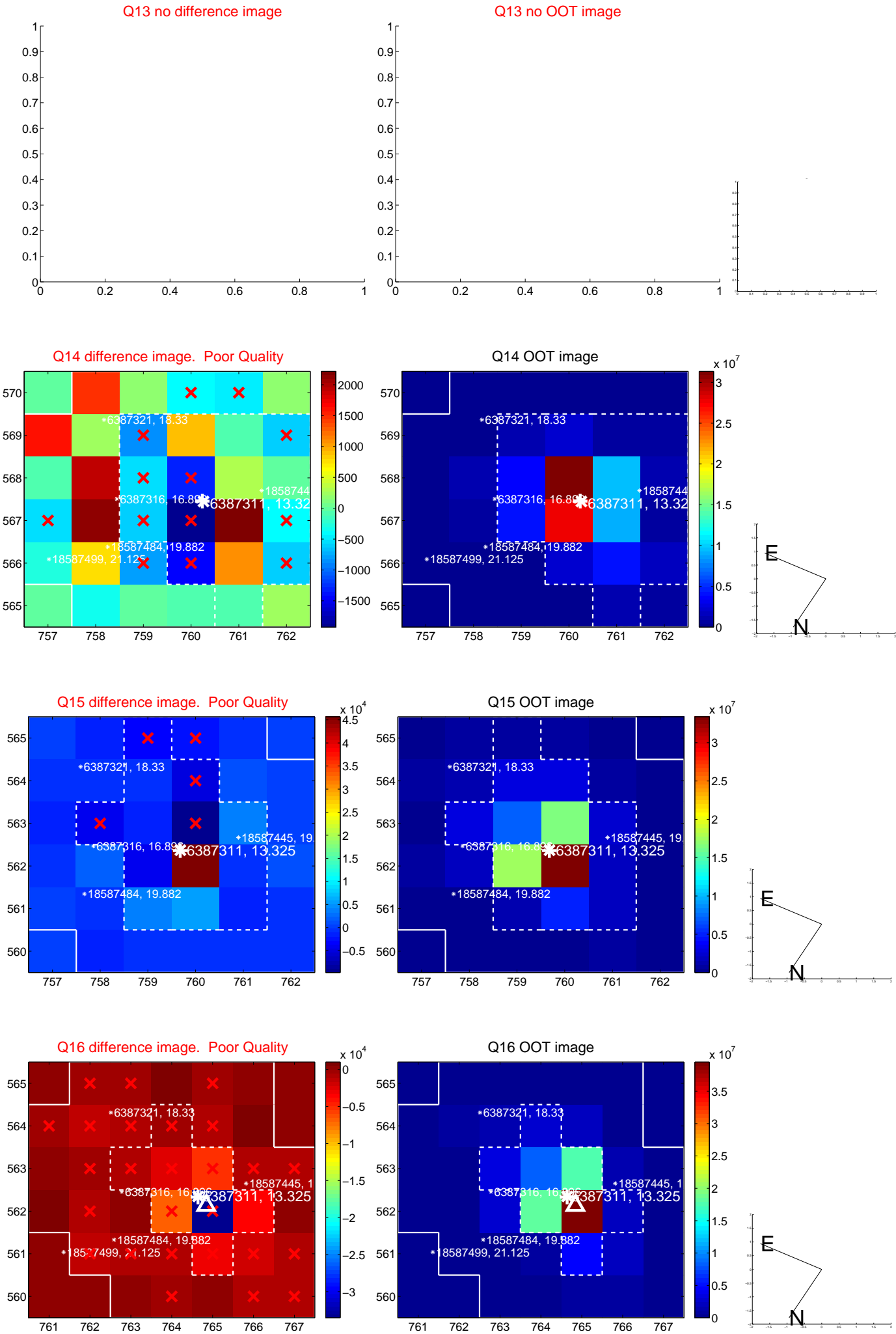
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



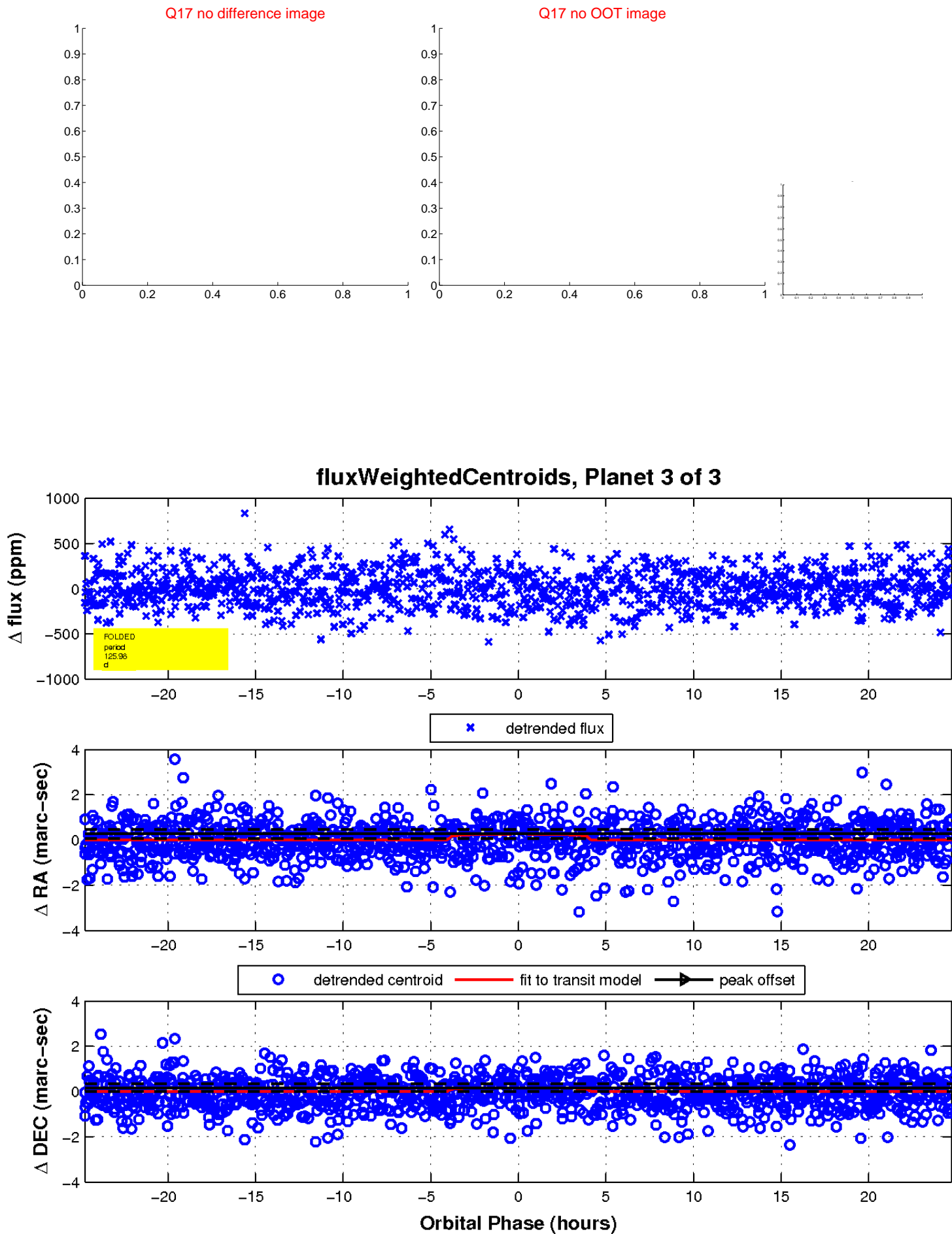
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

