

KIC 010664703

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})
010664703-01	OBS	No	0.605676	131.661572	734.7	1.767	20.5	24.4	3.43	7868	10.87	126808.09
010664703-02	OBS	No	0.605677	131.960027	761.4	1.685	21.3	26.6	3.43	7868	11.07	126807.79
010664703-03	OBS	No	0.605647	131.813082	662.5	2.779	18.1	19.9	3.43	7868	10.31	126816.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010664703-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_SATURATED—HALO_GHOST
010664703-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
010664703-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

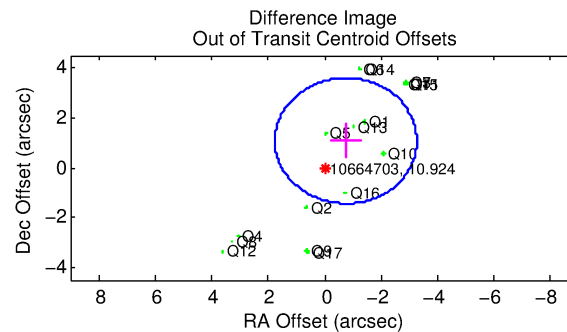
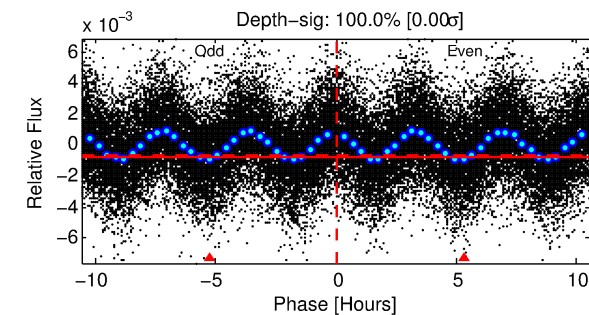
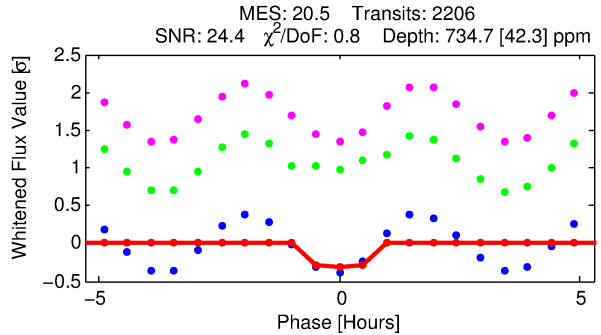
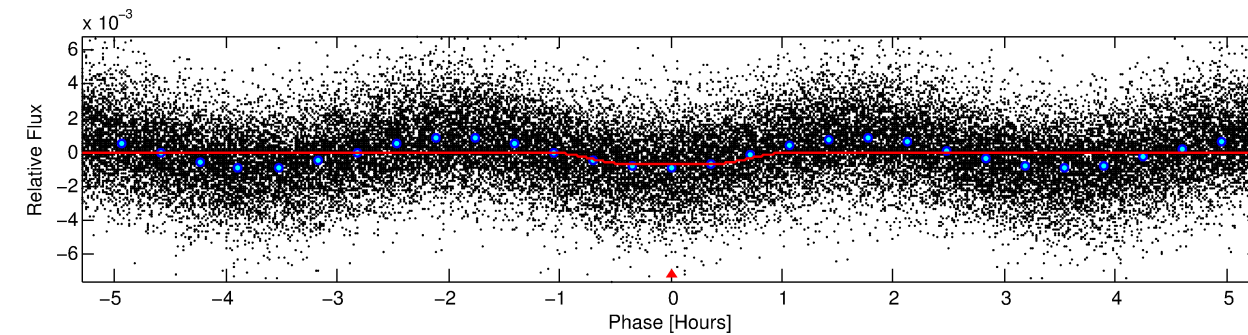
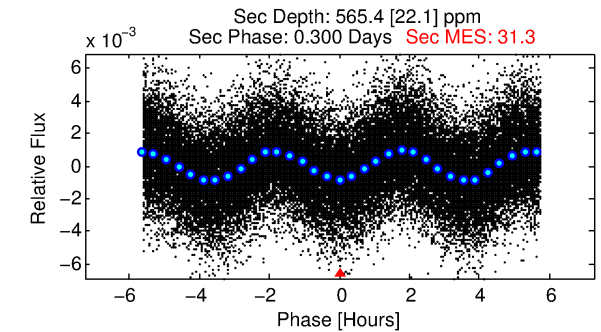
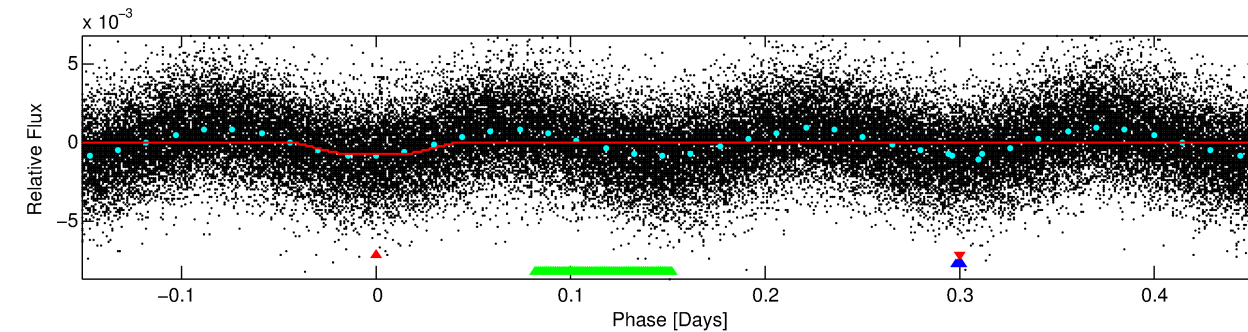
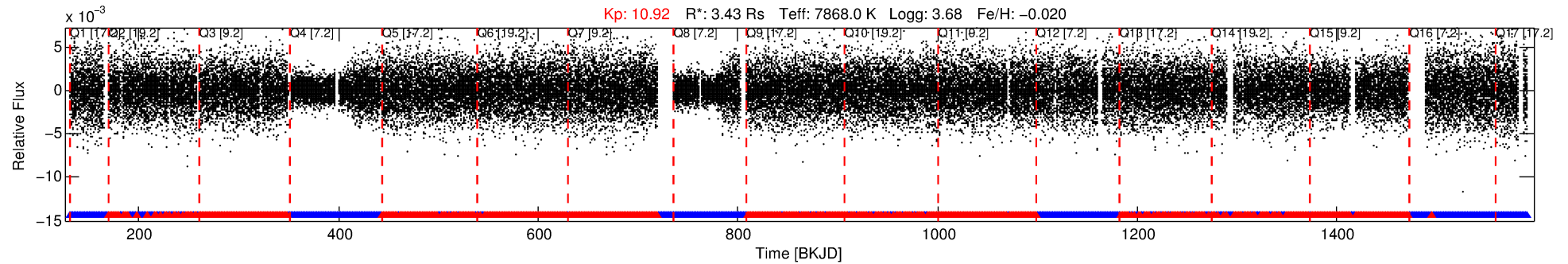
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010664703-01

No Significant Match Found

DV One-Page Summary

KIC: 10664703 Candidate: 1 of 3 Period: 0.606 d



DV Fit Results:

Period = 0.60568 [0.00000] d
Epoch = 131.6616 [0.0008] BKJD
 R_p/R^* = 0.0290 [0.0024]
 a/R^* = 1.61 [0.42]
 b = 0.90 [0.09]
 Seff = 126808.09 [99836.02]
 T_{eq} = 4812 [947] K
 R_p = 10.87 [5.00] R_e
 a = 0.0179 [0.0083] AU
 A_g = 0.84 [0.66] [-0.24σ]
 T_{eff} = 7121 [438] K [2.21σ]

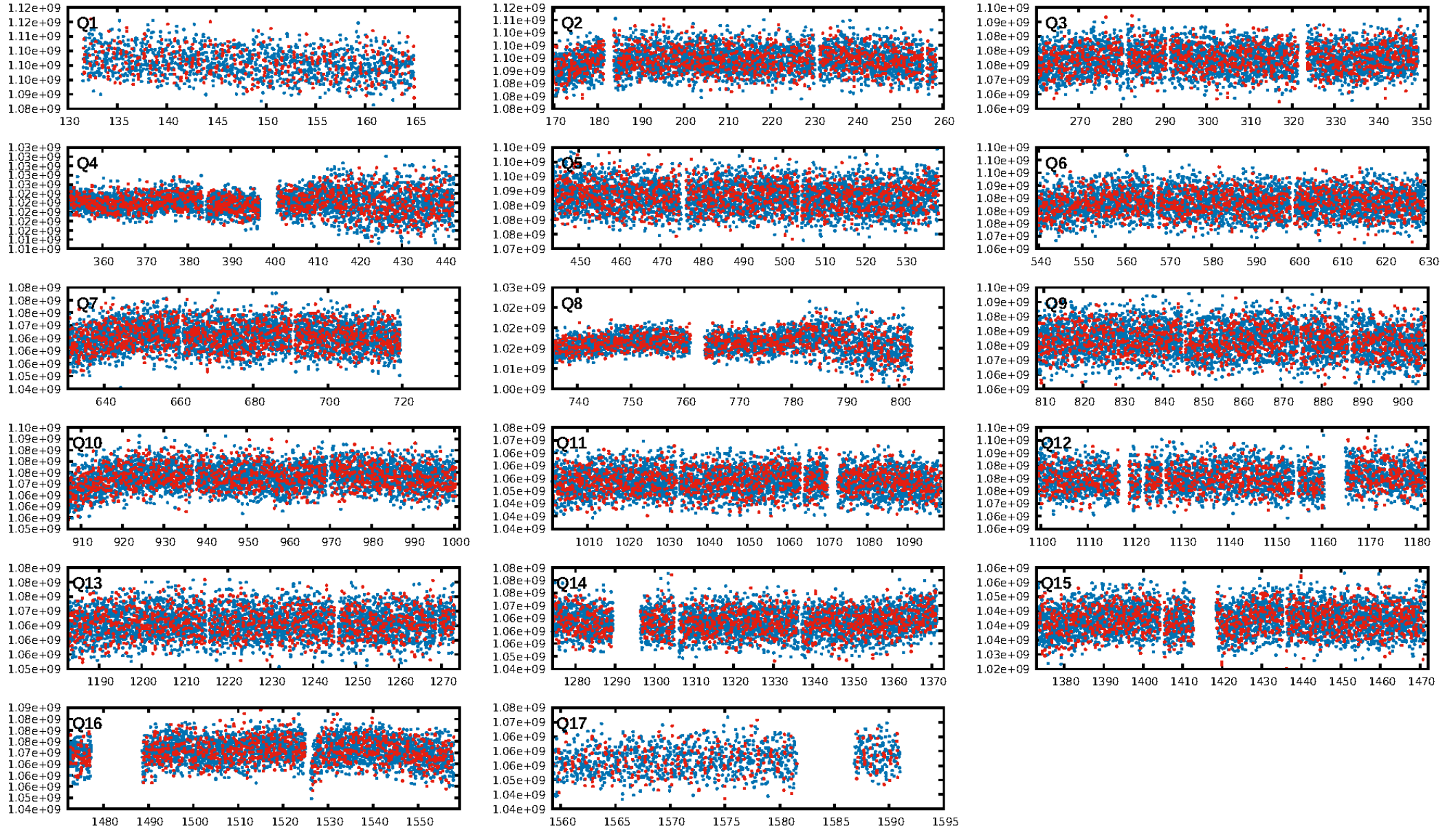
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.45 [957/2106]
GhostDiagnostic-chr: 0.1818
Centroid-sig: 0.4%
Centroid-so: 0.145 arcsec [2.92σ]
OotOffset-rm: 1.310 arcsec [1.56σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.808 arcsec [1.03σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.35 [6/17]
DiffImageOverlap-fno: 0.00 [0/17]

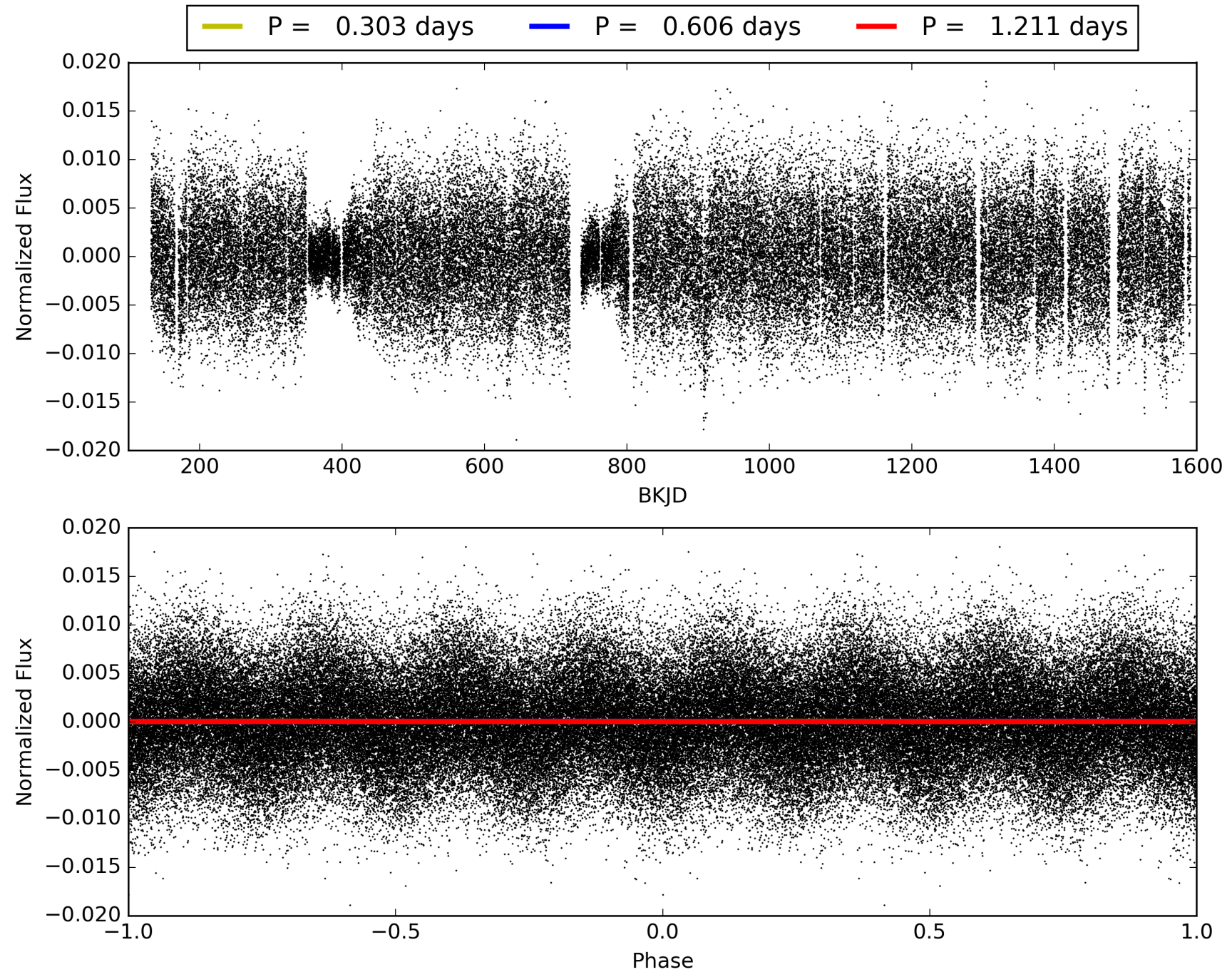
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010664703-01, PDC Light Curves

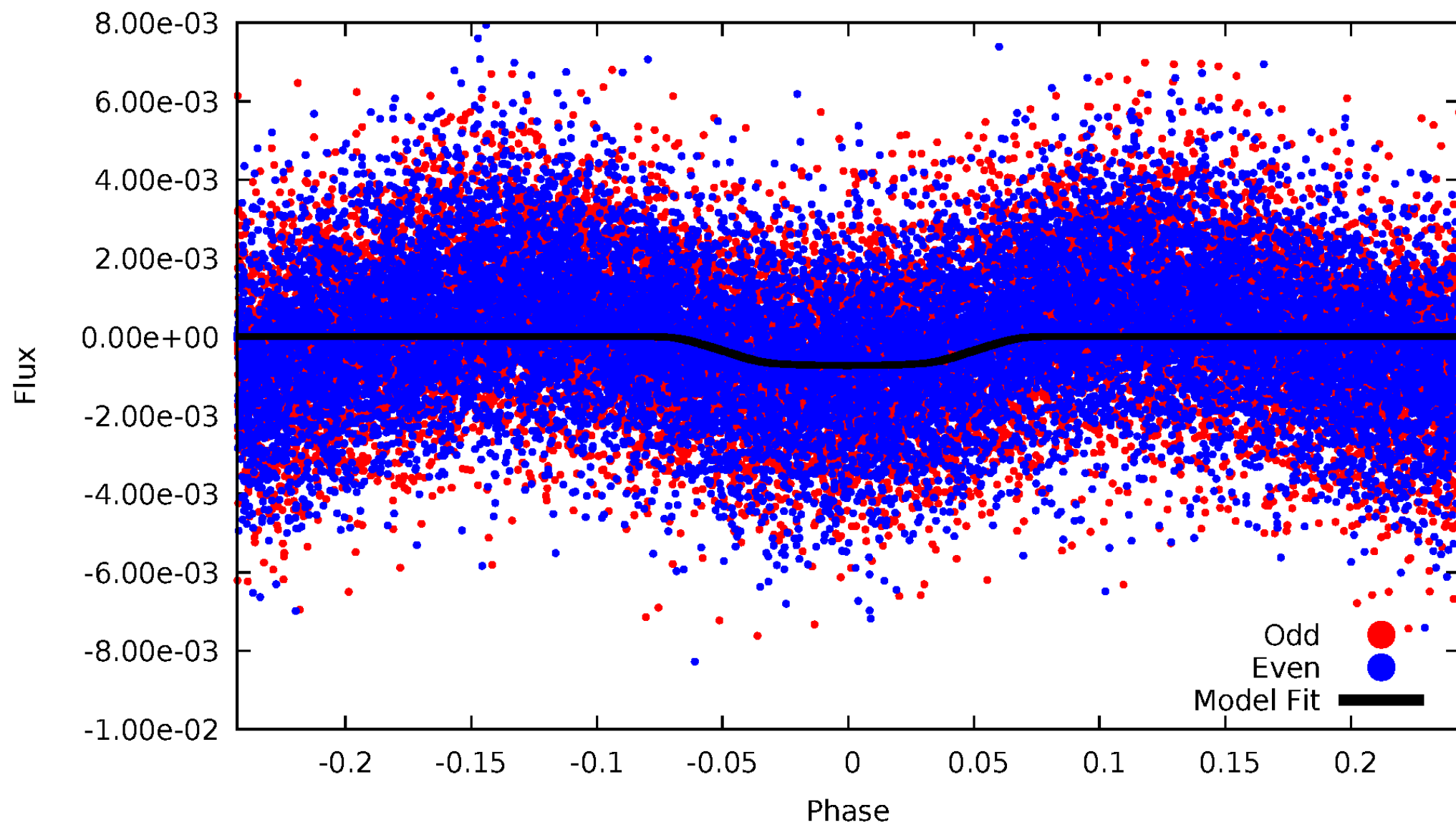


TCE 010664703-01



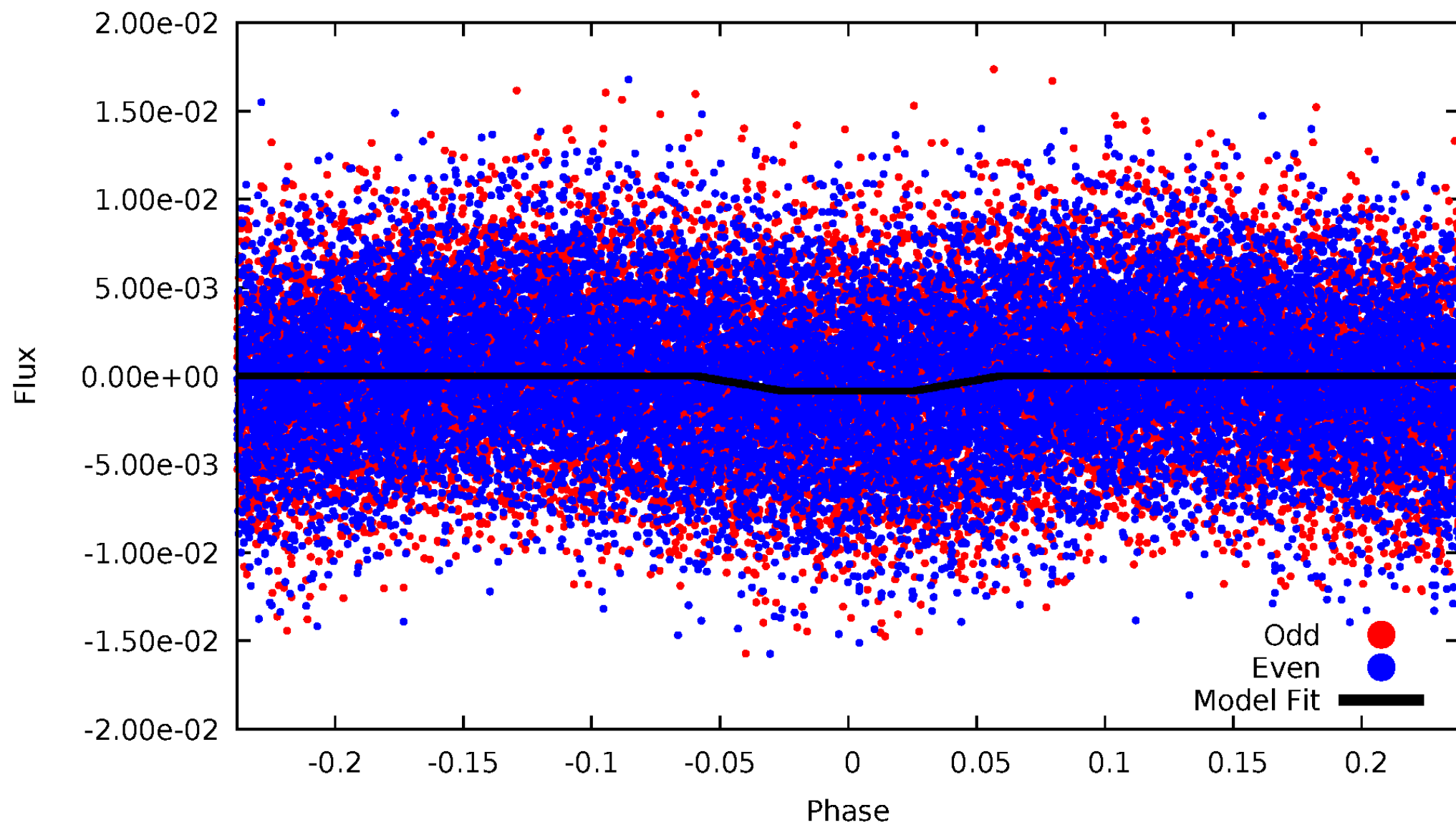
DV Odd/Even

TCE 010664703-01

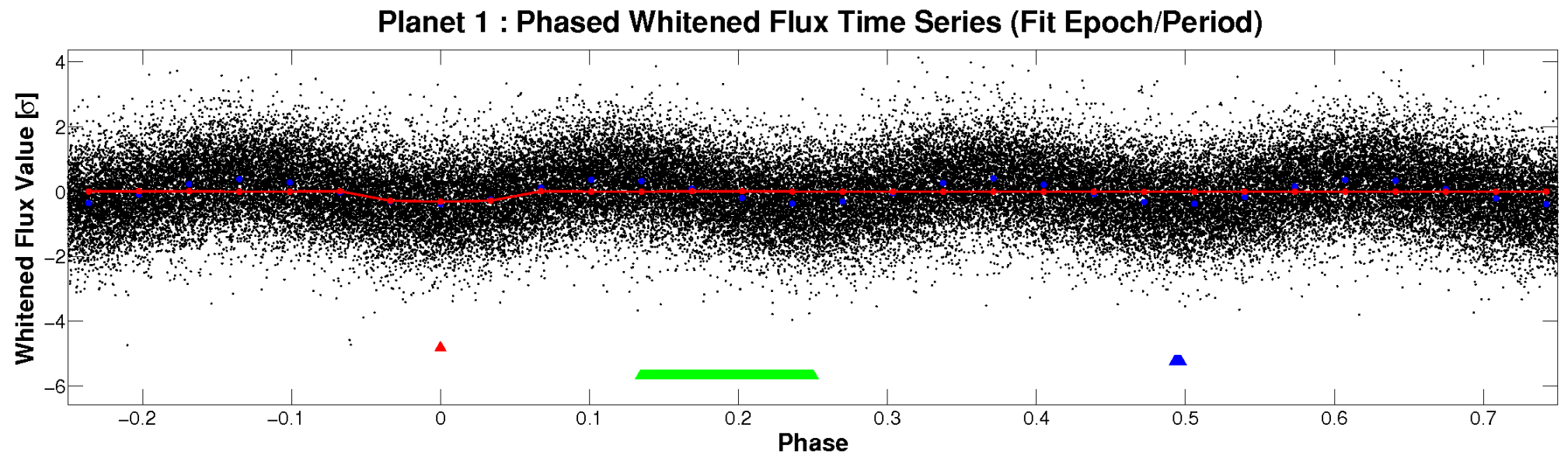
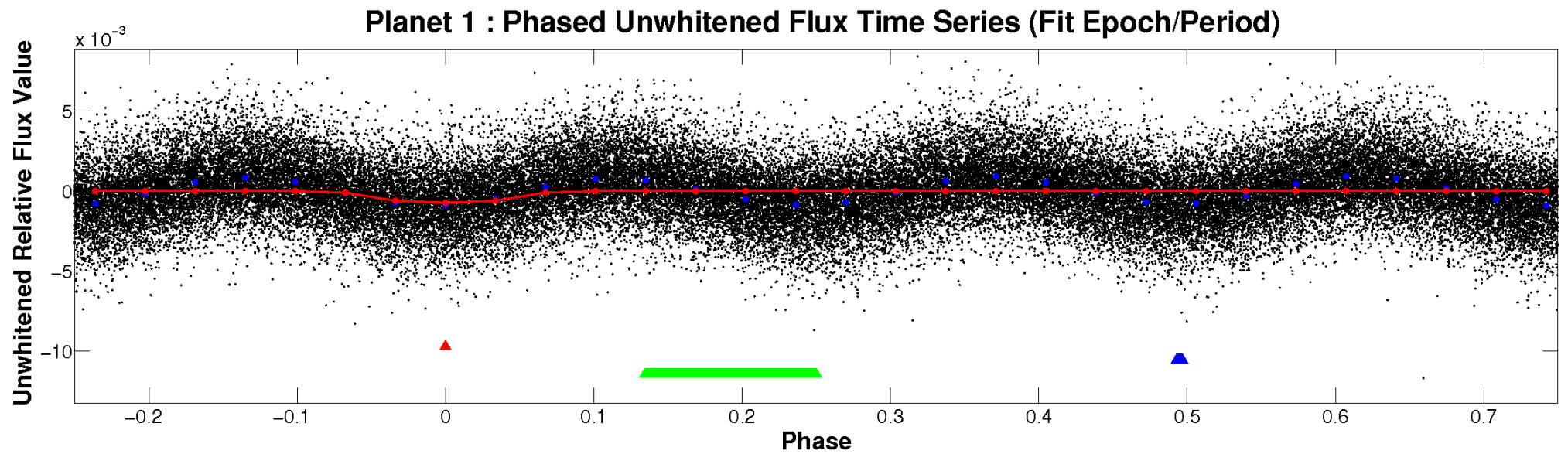


ALT Odd/Even

TCE 010664703-01

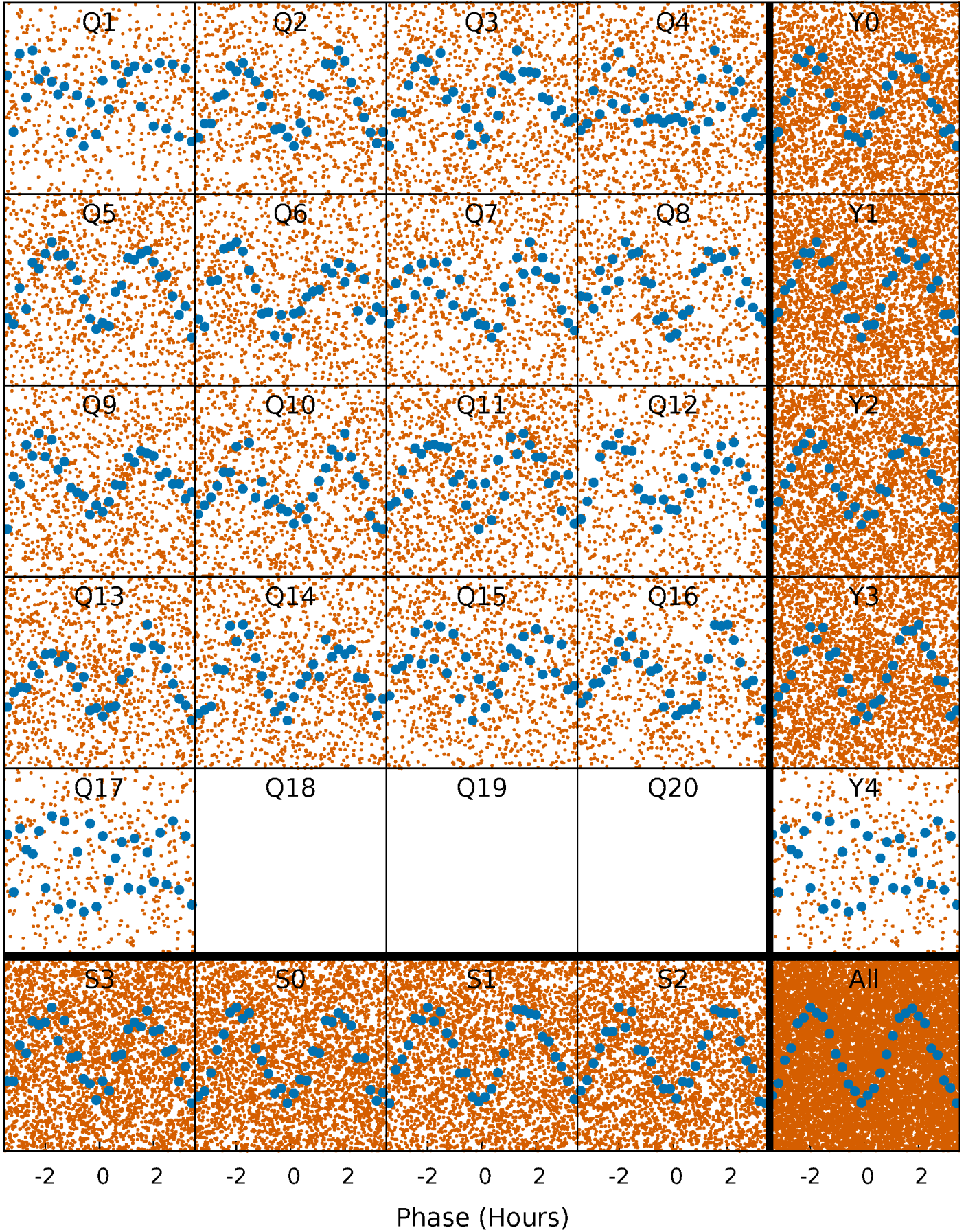


Non-Whitened Vs. Whitened Light Curve



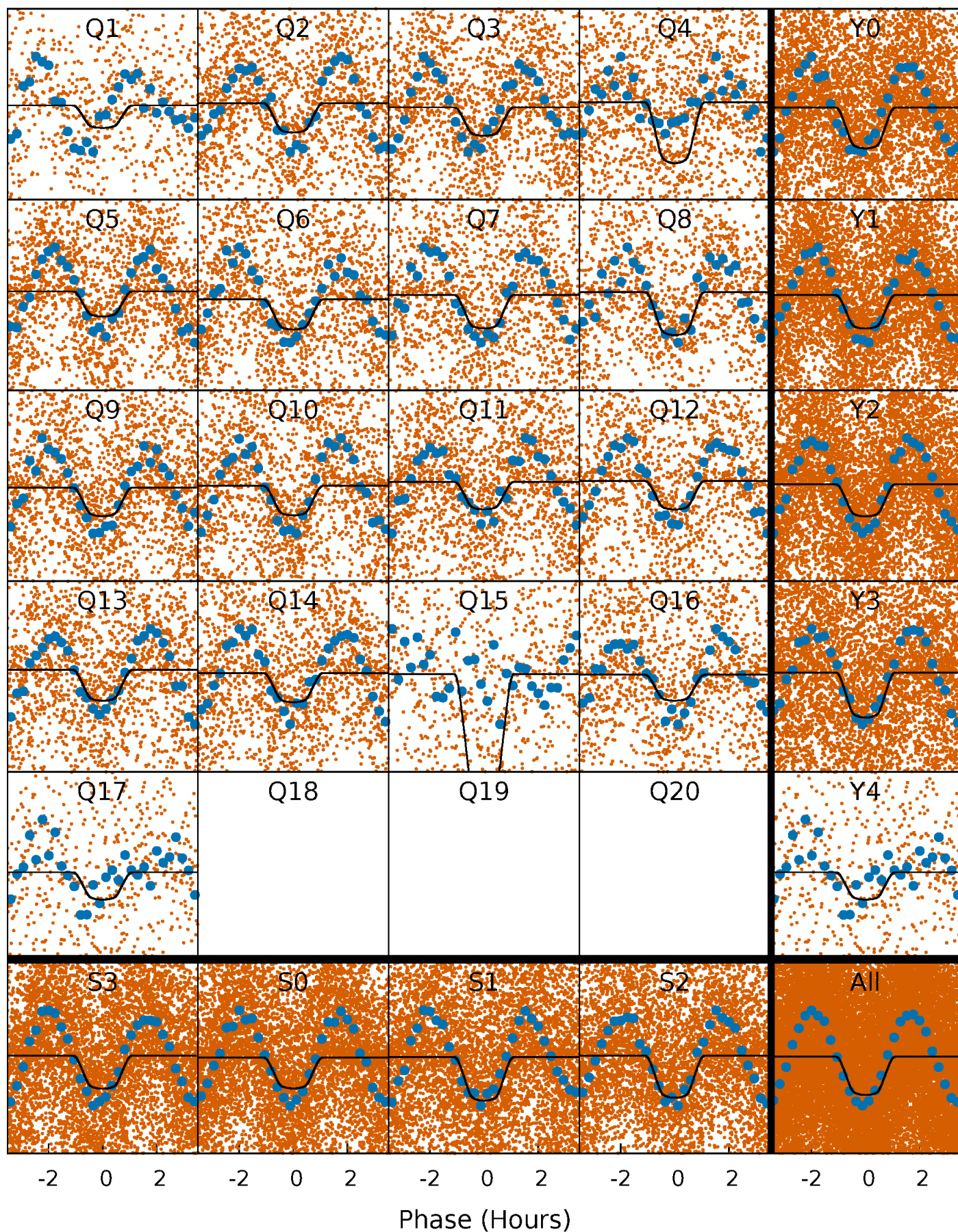
PDC Quarter-Phased Transit Curves

TCE 010664703-01 P= 0.605676 Days $T_0=131.661572$ (BKJD)



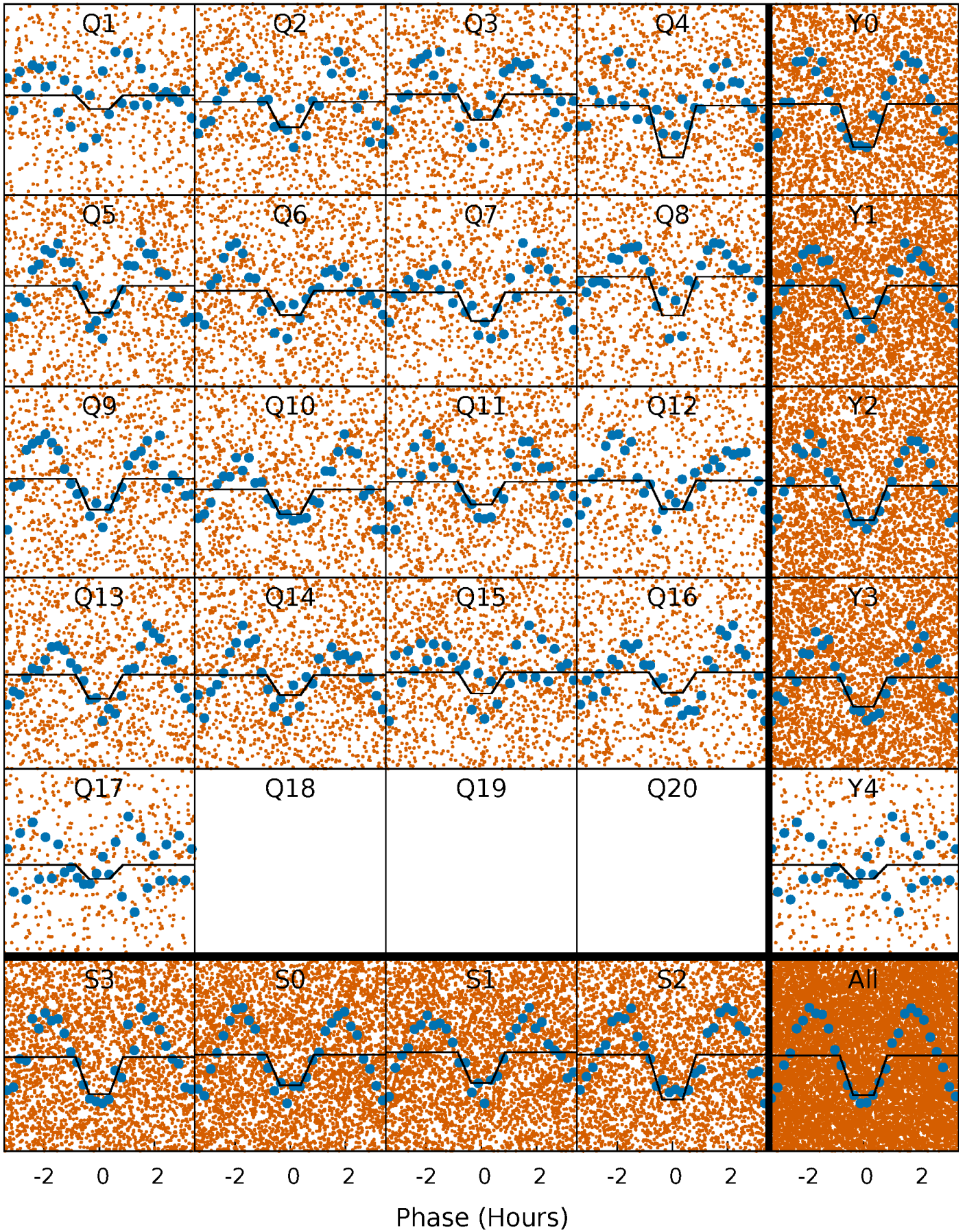
DV Quarter-Phased Transit Curves

TCE 010664703-01 P= 0.605676 Days $T_0=131.661572$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

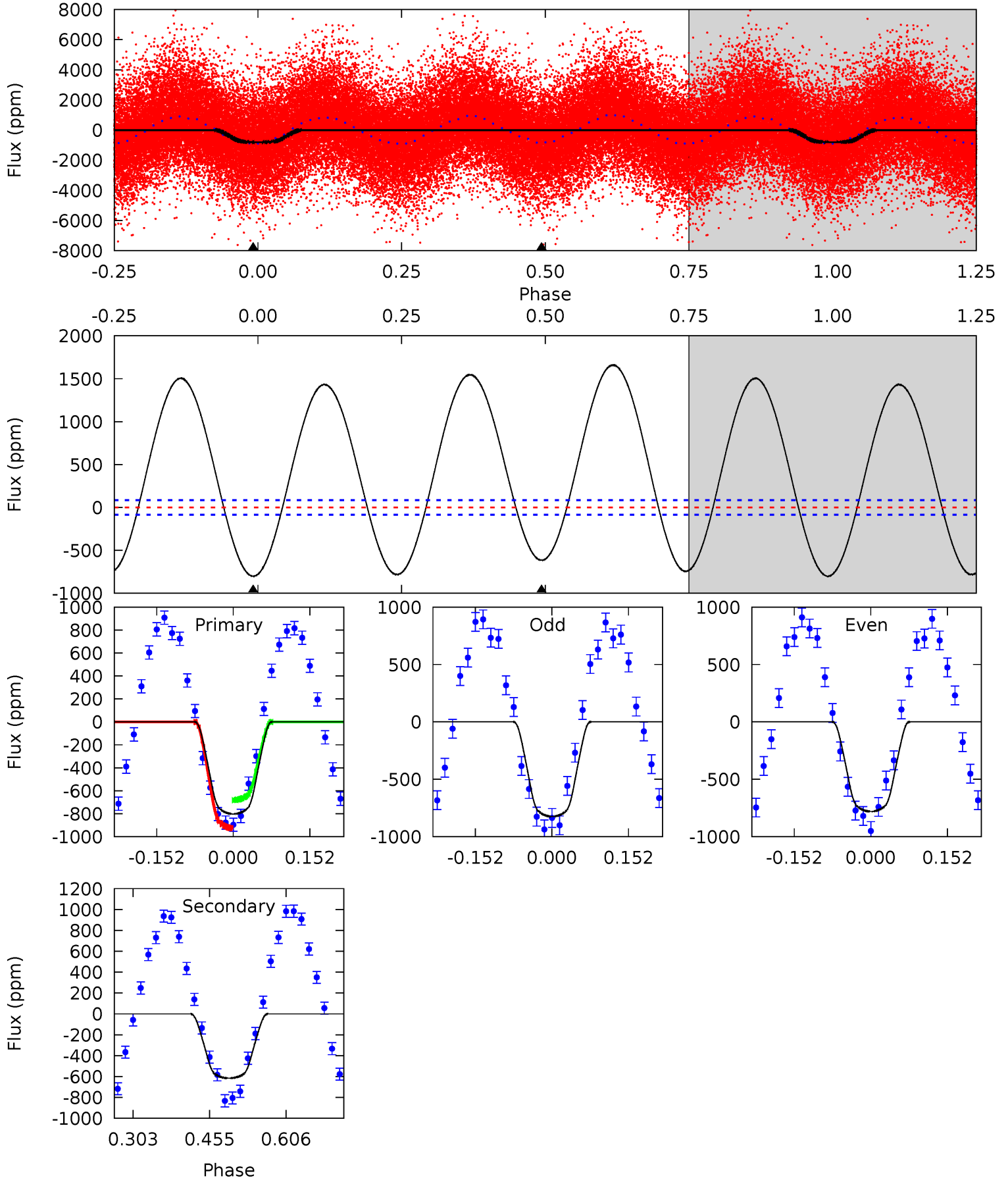
TCE 010664703-01 P= 0.605674 Days $T_0=131.660864$ (BKJD)



DV Model-Shift Uniqueness Test

010664703-01, P = 0.605676 Days, E = 131.055896 Days

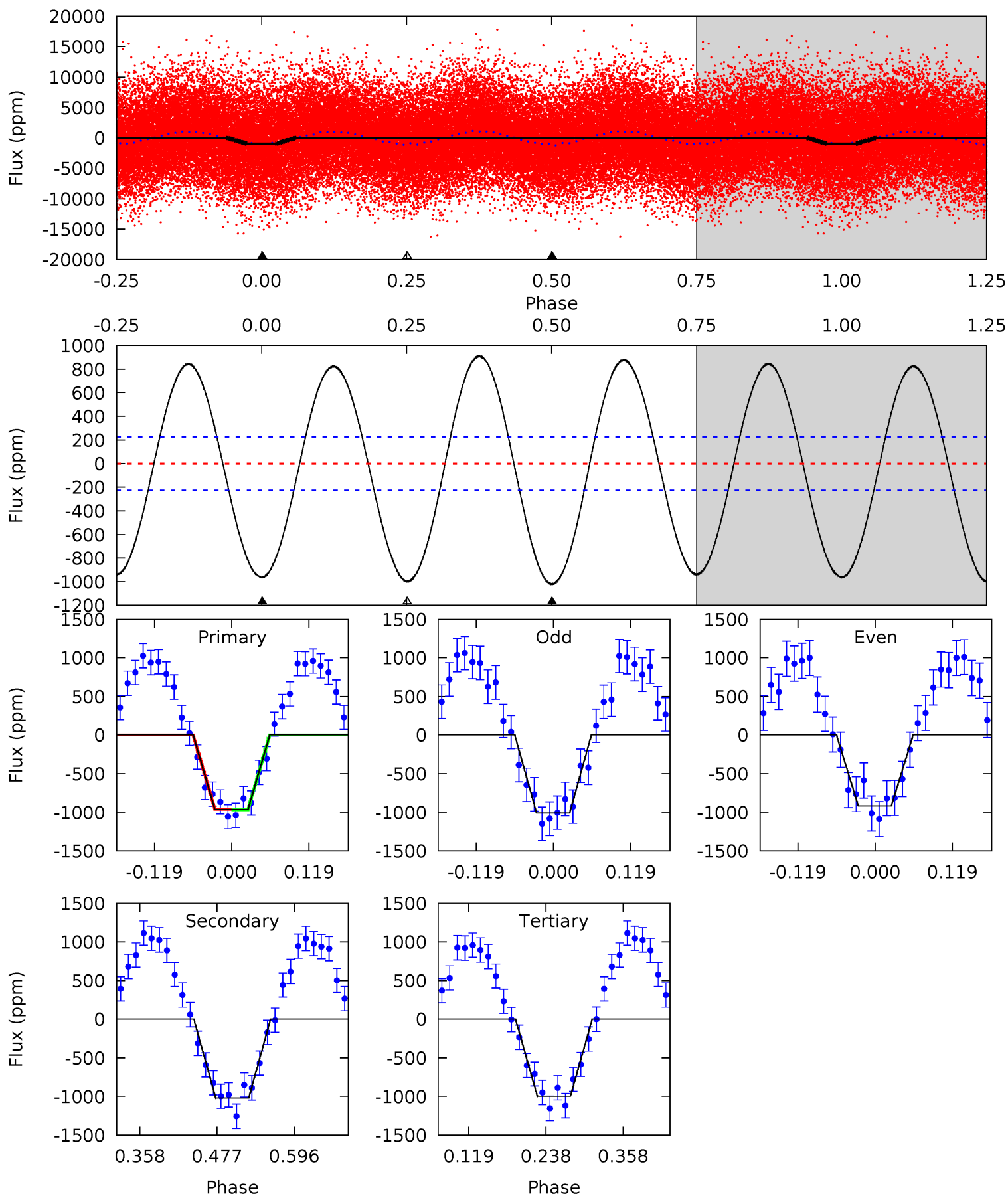
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.4	32.5	0	0	4.48	1.43	35.3	42.4	42.4	32.5	32.5	1.18	1.05	0.67	6.92



Alt Model-Shift Uniqueness Test

010664703-01, P = 0.605674 Days, E = 131.055190 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	20.4	19.9	0	4.53	1.56	13.2	-0.72	19.2	0.43	20.4	0.92	1.04	0.47	0.07



Stellar Parameters For KIC 010664703

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7868^{+217}_{-353}	$3.683^{+0.459}_{-0.108}$	$-0.020^{+0.200}_{-0.350}$	$3.433^{+0.718}_{-1.555}$	$2.074^{+0.343}_{-0.514}$	$0.072^{+0.316}_{-0.025}$
	+3%/-4%	+12%/-3%	+1000%/-1750%	+21%/-45%	+17%/-25%	+437%/-35%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010664703-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-616 ± 19	$10.27^{+2.04}_{-2.68}$	6496^{+507}_{-775}	6535^{+533}_{-525}	$1.035^{+0.740}_{-0.280}$
Alt.	-1022 ± 50	$10.31^{+1.88}_{-2.68}$	6458^{+525}_{-760}	7819^{+593}_{-596}	$1.730^{+1.222}_{-0.466}$

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 $A_{obs} \gg 1.0$

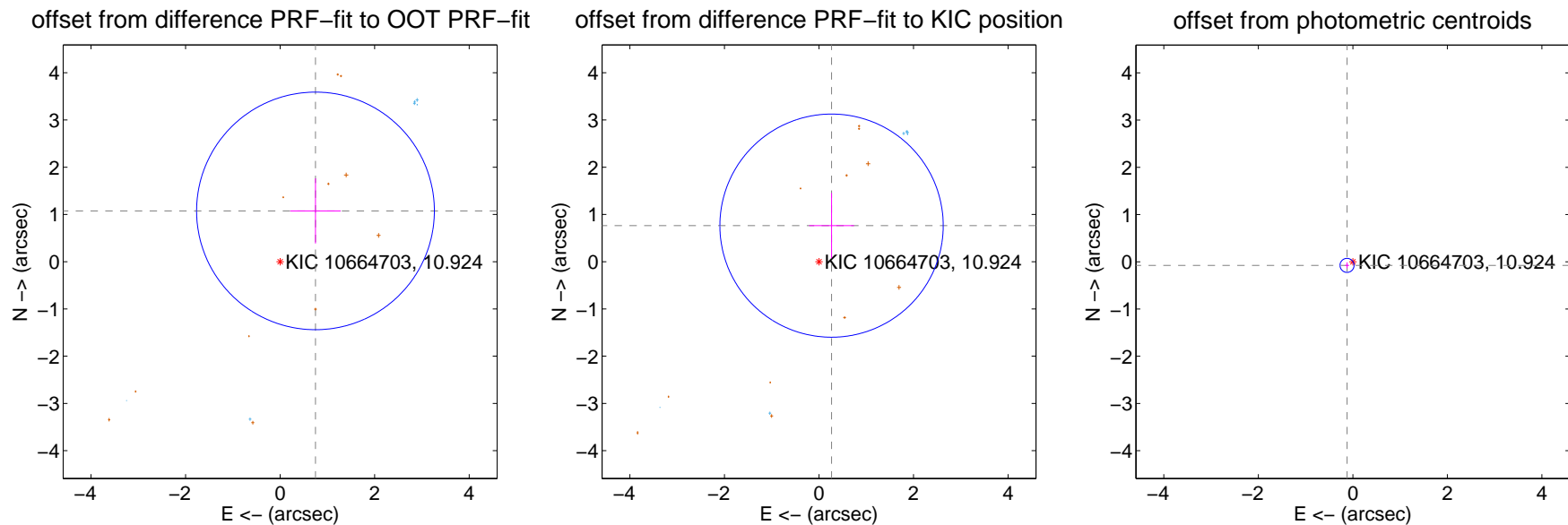
DV Centroid Data

Supplemental centroid analysis for 010664703-01. **Kepler magnitude: 10.92.** Transit SNR 24.38

There are 6 quarters with good PRF difference image offsets

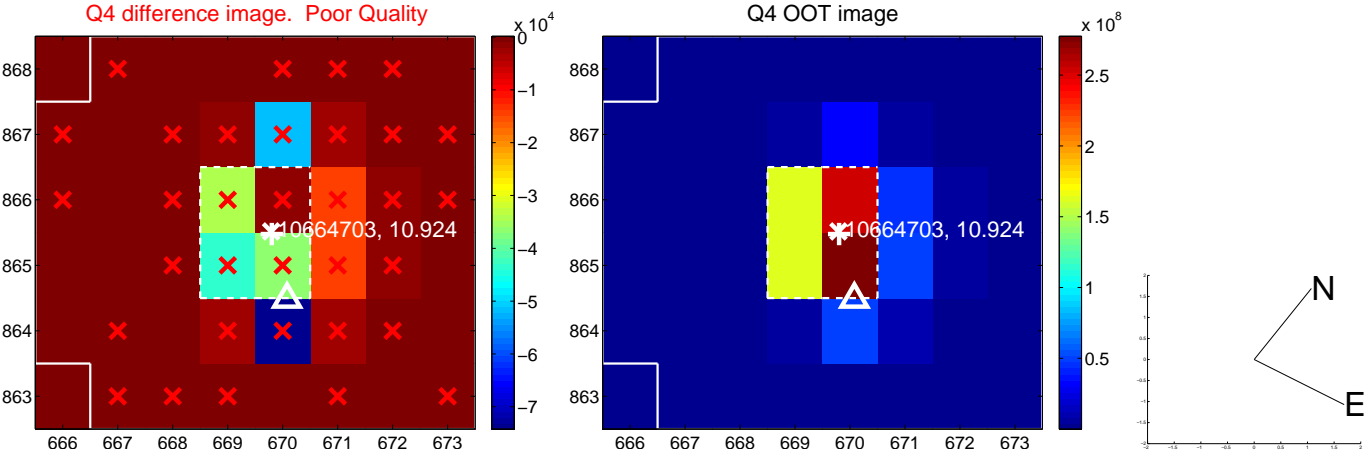
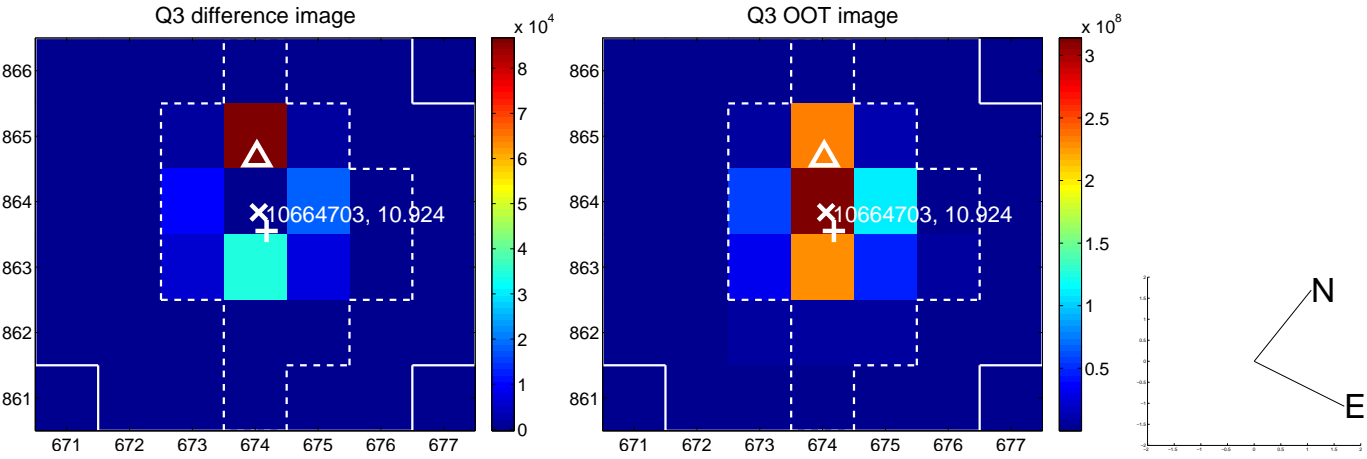
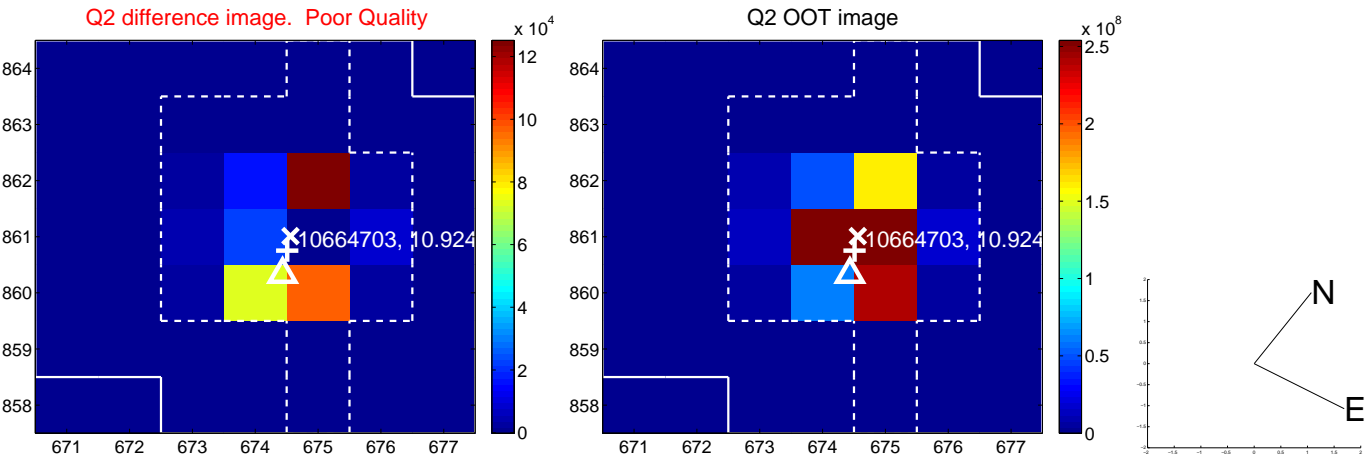
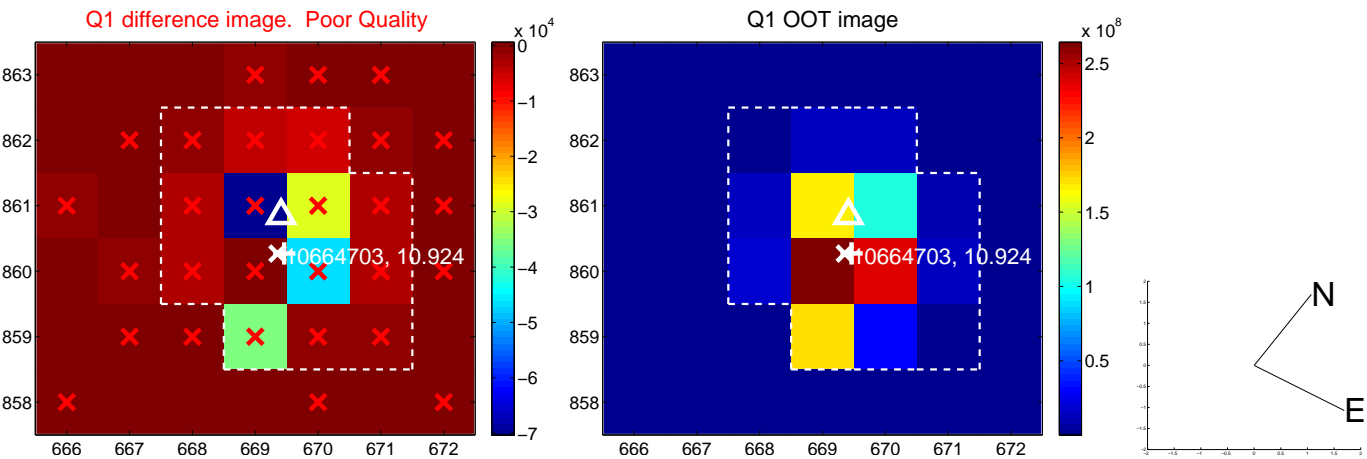
The direct PRF centroid is offset from the target star catalog position by about 0.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.310 ± 0.838	1.56	-0.748 ± 0.535	1.075 ± 0.689
PRF-fit source offset from KIC position	0.808 ± 0.787	1.03	-0.266 ± 0.475	0.763 ± 0.690
photometric centroid source offset	0.14 ± 0.05	2.92	0.12 ± 0.04	-0.08 ± 0.06

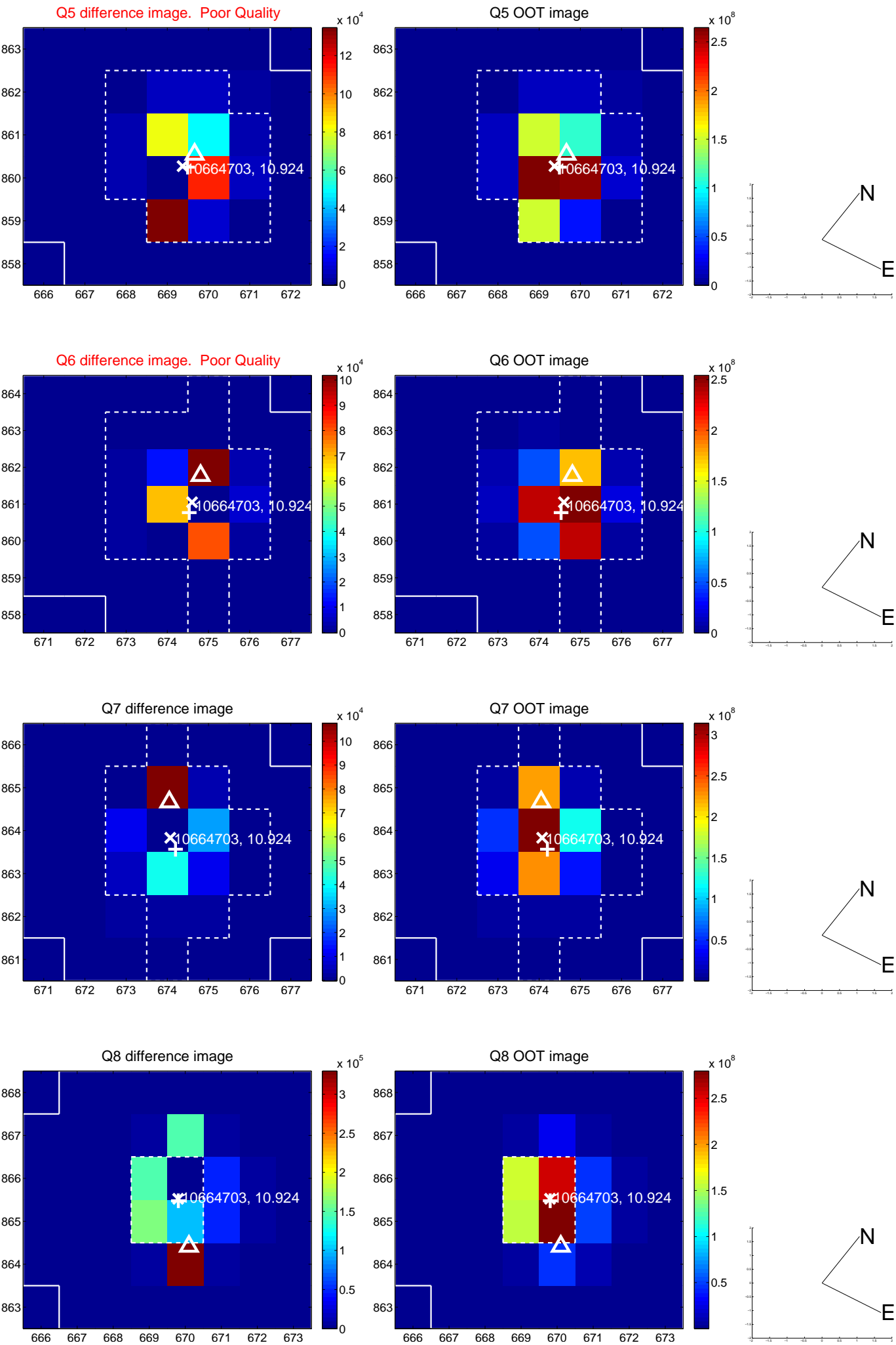


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

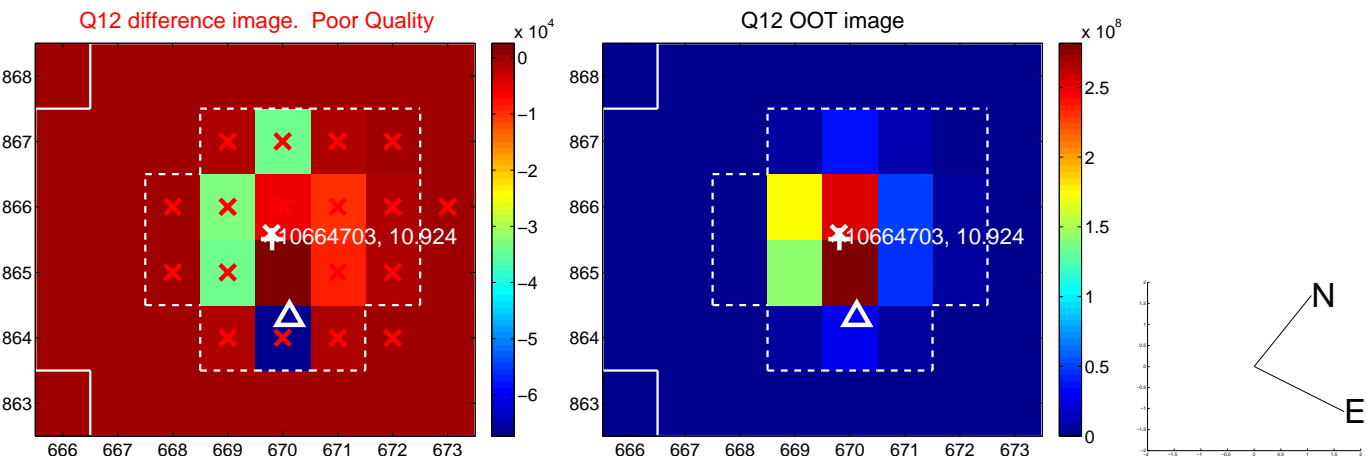
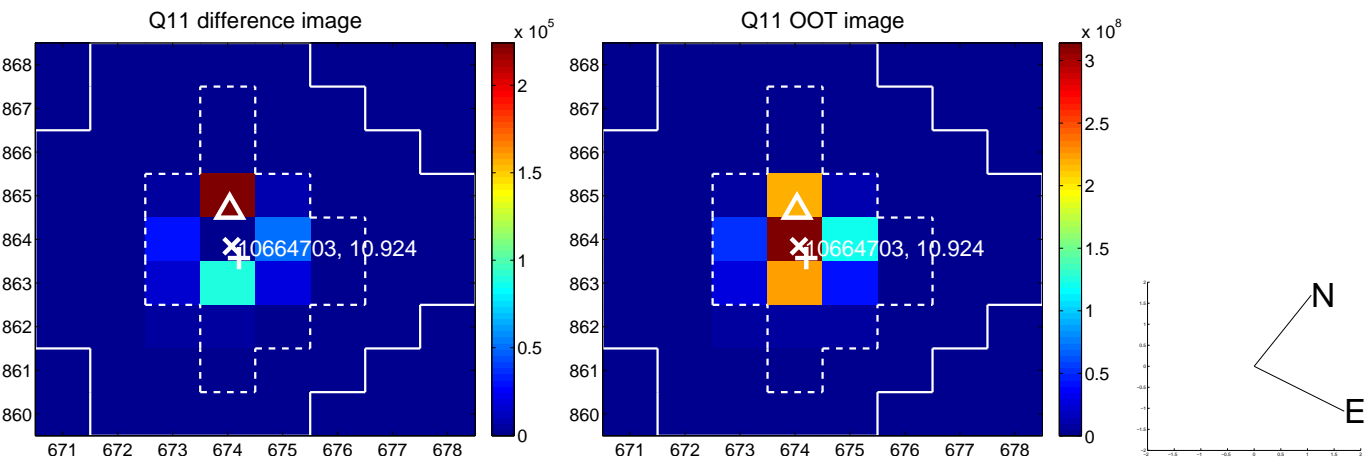
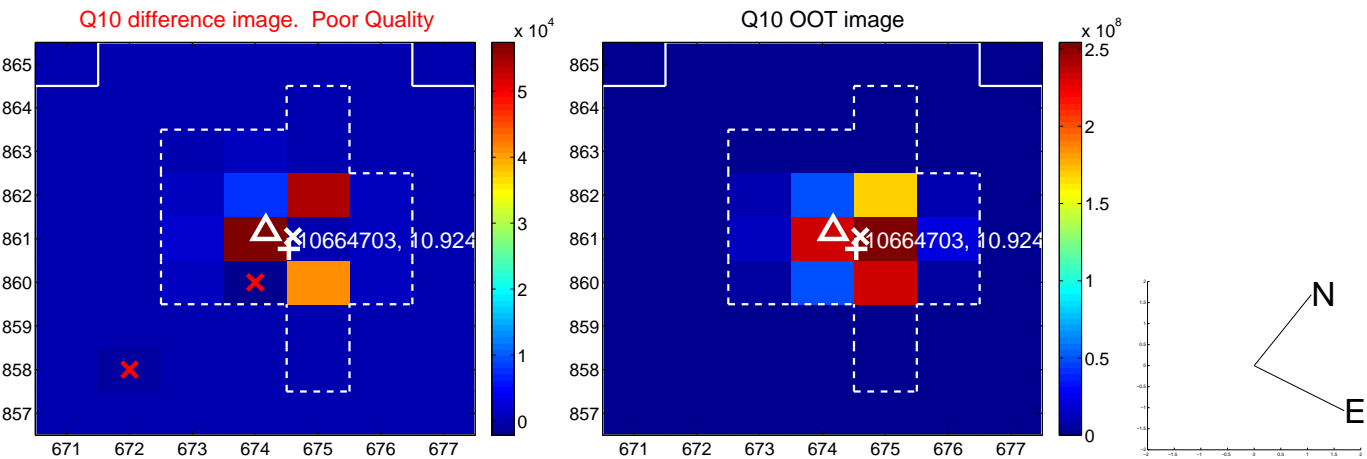
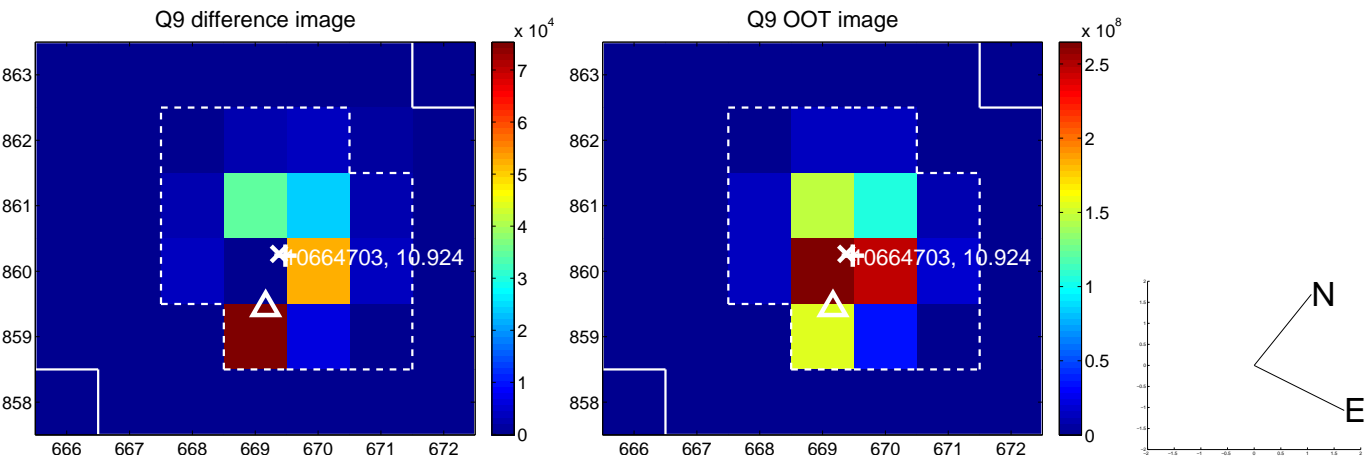
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



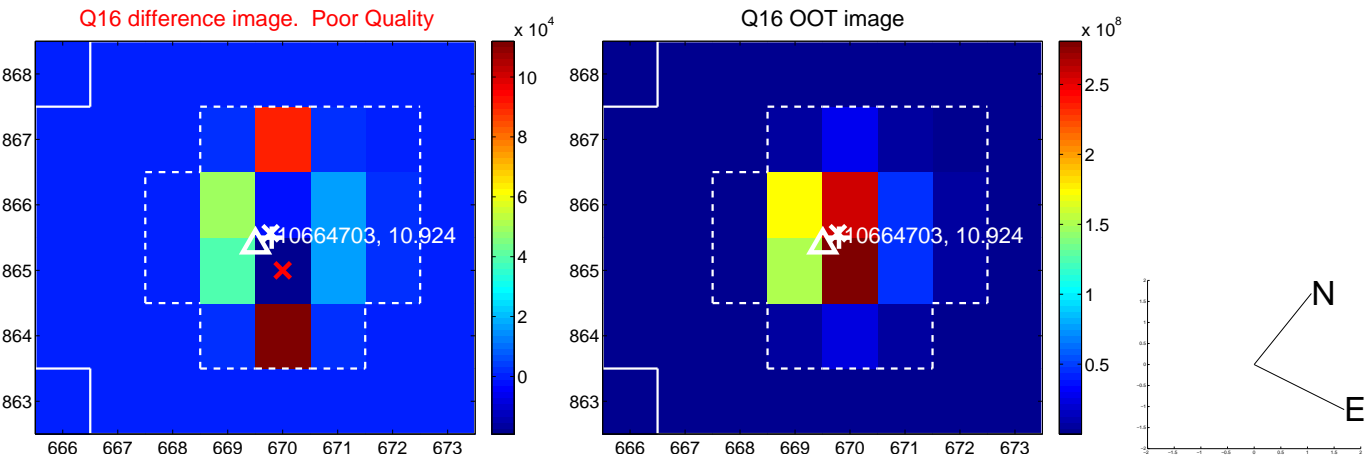
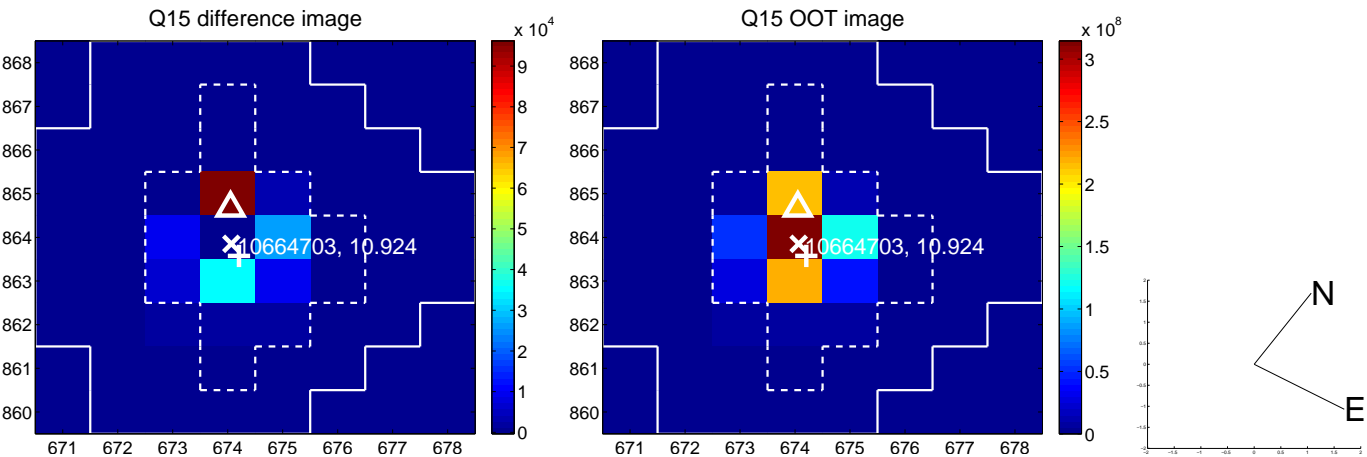
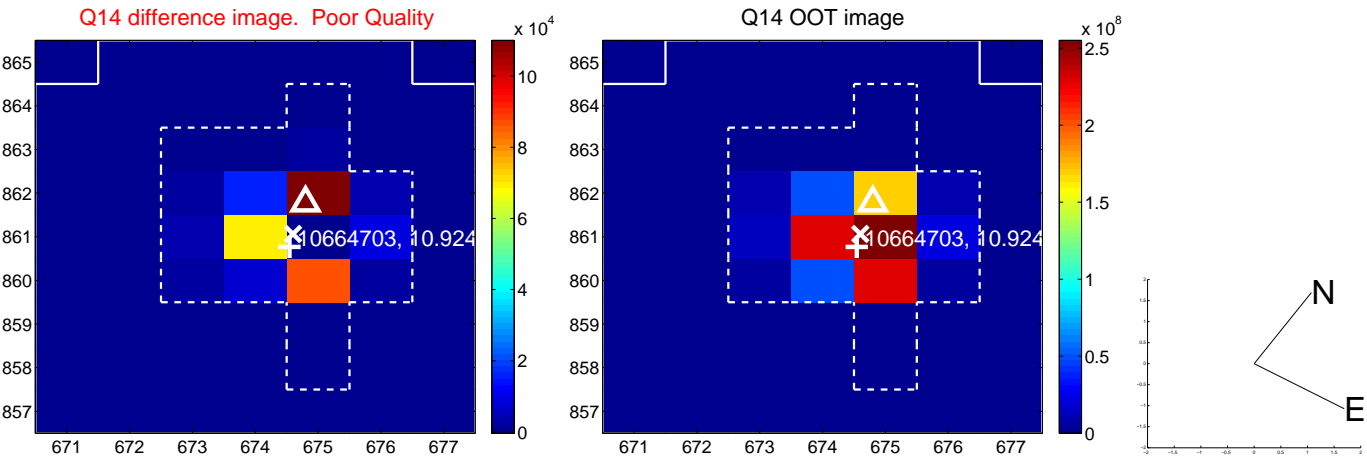
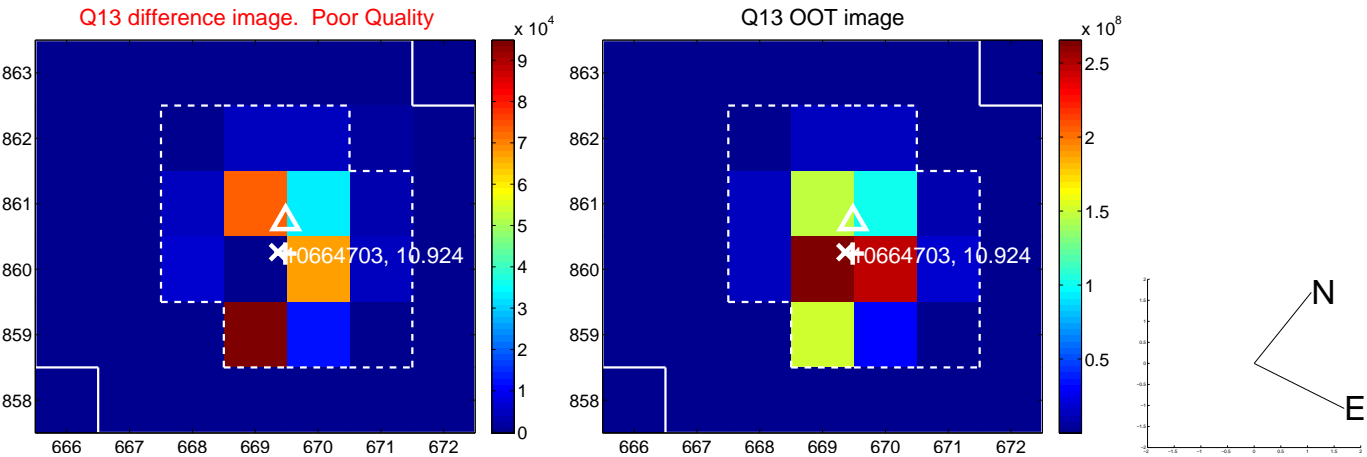
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



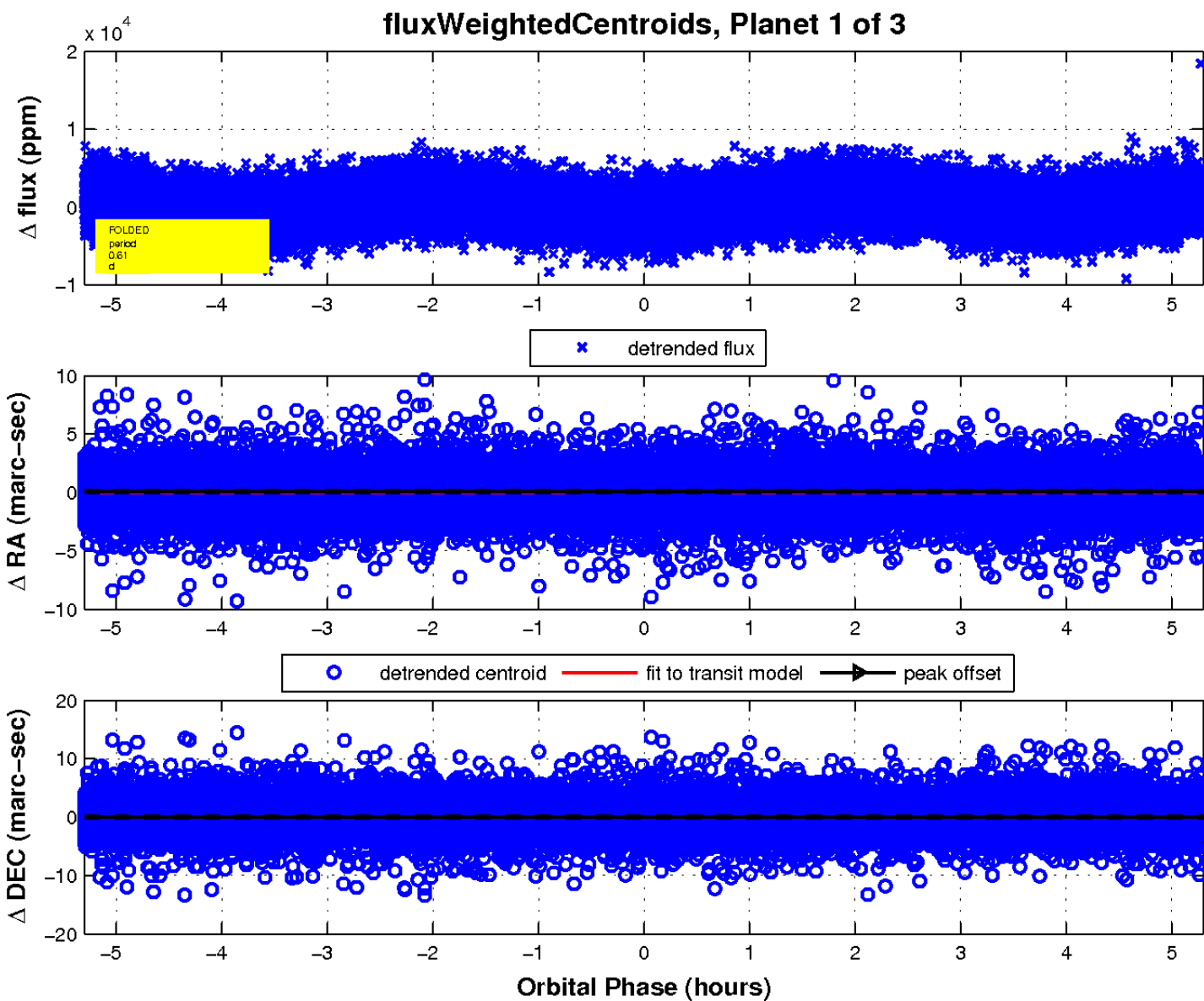
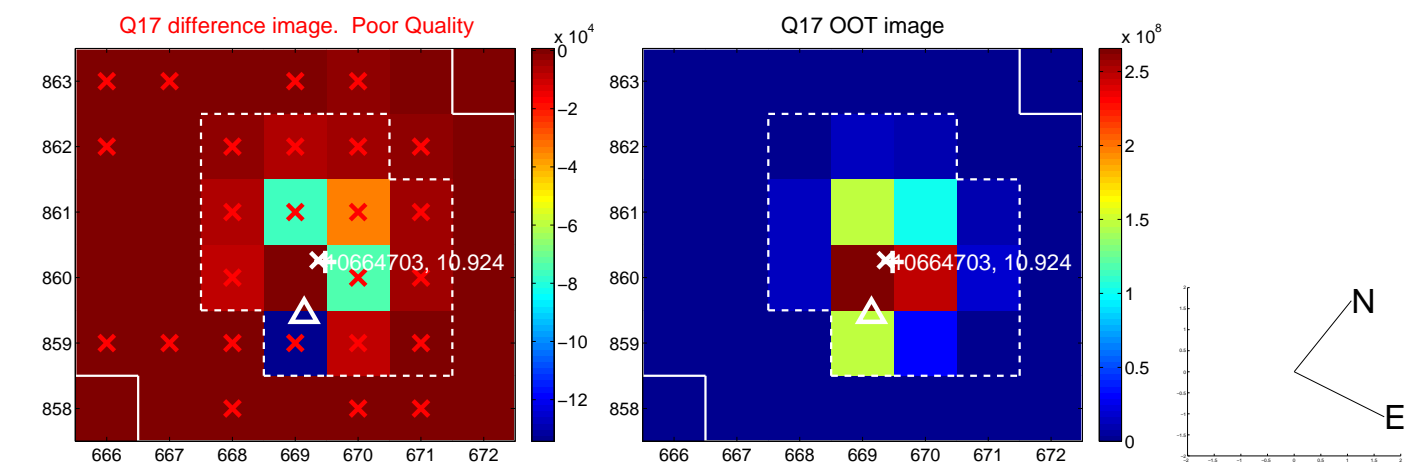
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

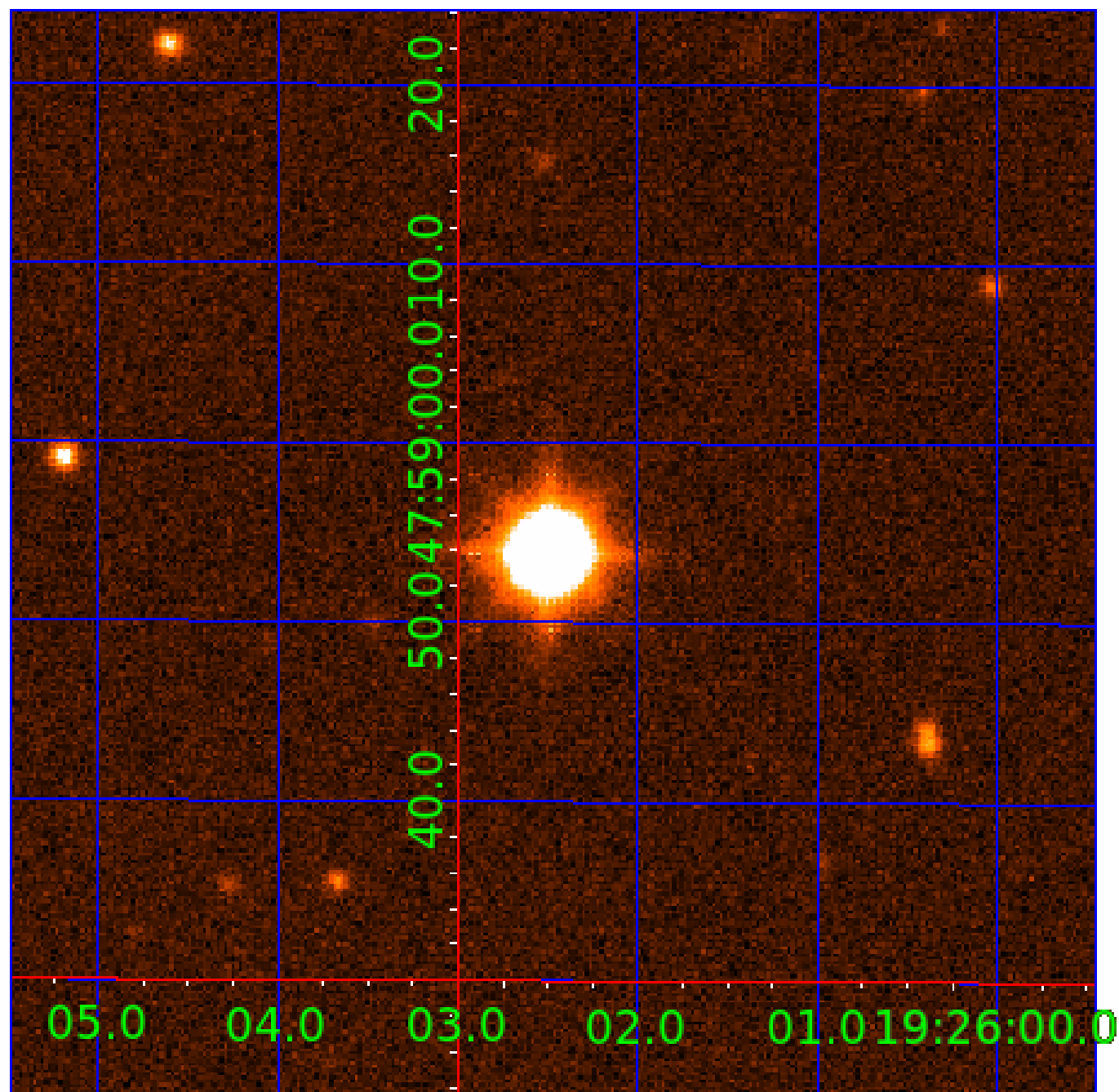


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010664703

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})
010664703-01	OBS	No	0.605676	131.661572	734.7	1.767	20.5	24.4	3.43	7868	10.87	126808.09
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010664703-03	OBS	No	0.605647	131.813082	662.5	2.779	18.1	19.9	3.43	7868	10.31	126816.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010664703-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_SATURATED—HALO_GHOST
010664703-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
010664703-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

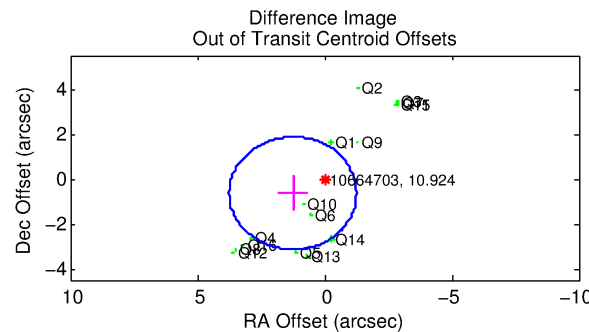
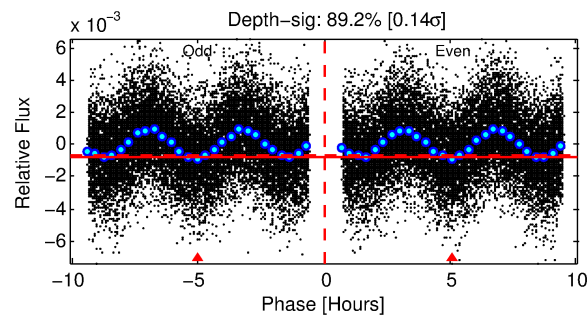
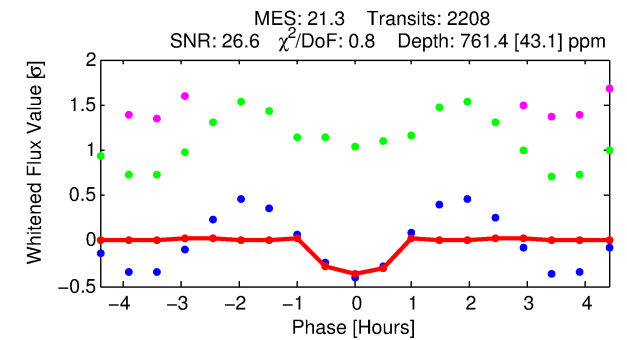
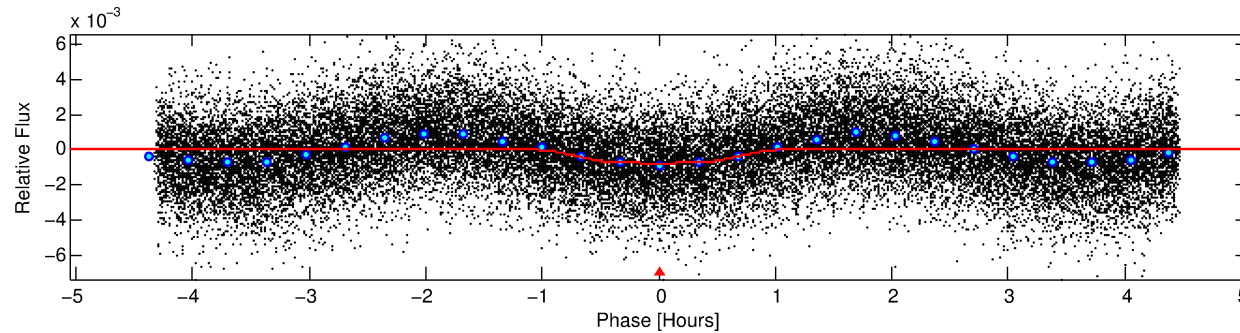
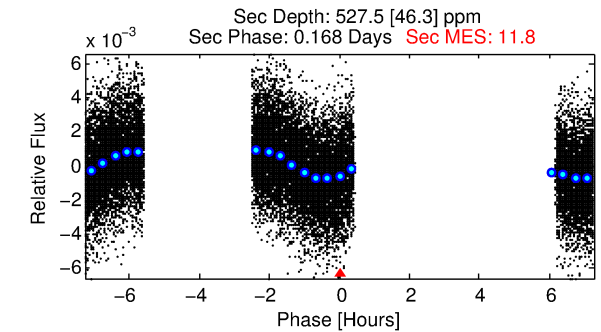
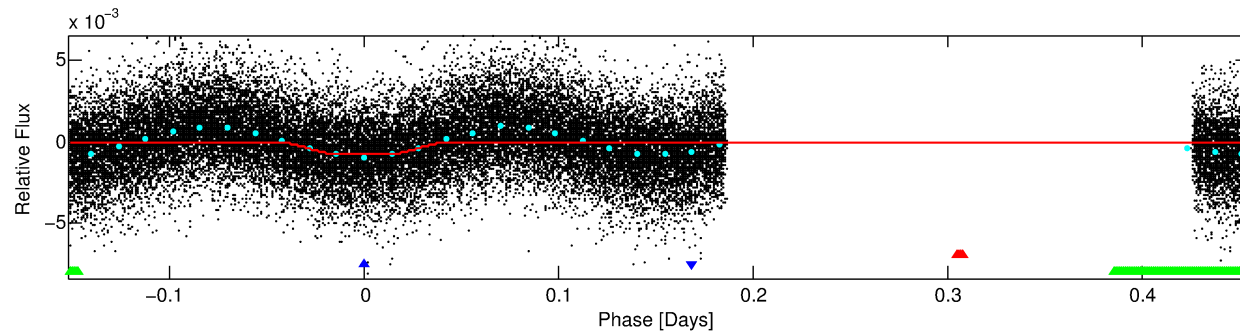
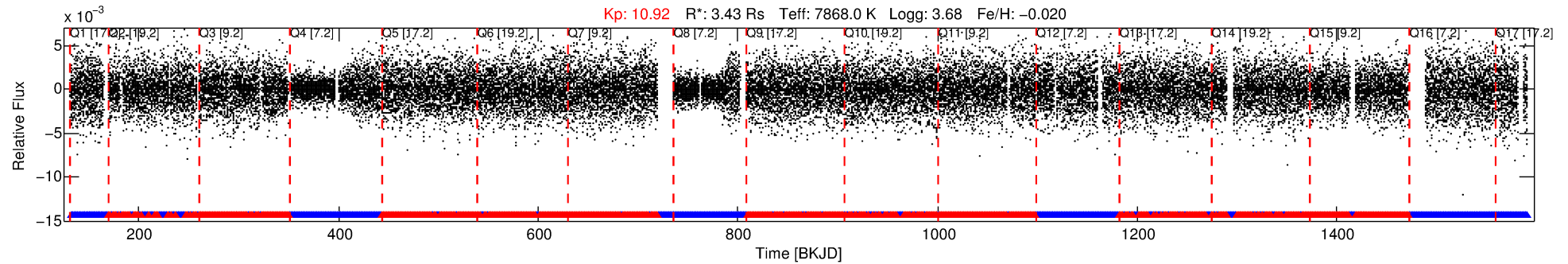
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010664703-02

No Significant Match Found

DV One-Page Summary

KIC: 10664703 Candidate: 2 of 3 Period: 0.606 d



DV Fit Results:

Period = 0.60568 [0.00000] d
Epoch = 131.9600 [0.0007] BKJD
Rp/R* = 0.0296 [0.0026]
a/R* = 1.67 [0.49]
b = 0.90 [0.10]
Seff = 126807.79 [99835.78]
Teq = 4812 [947] K
Rp = 11.07 [5.11] Re
a = 0.0179 [0.0083] AU
Ag = 0.76 [0.60] [-0.41σ]
Teffp = 6936 [460] K [2.02σ]

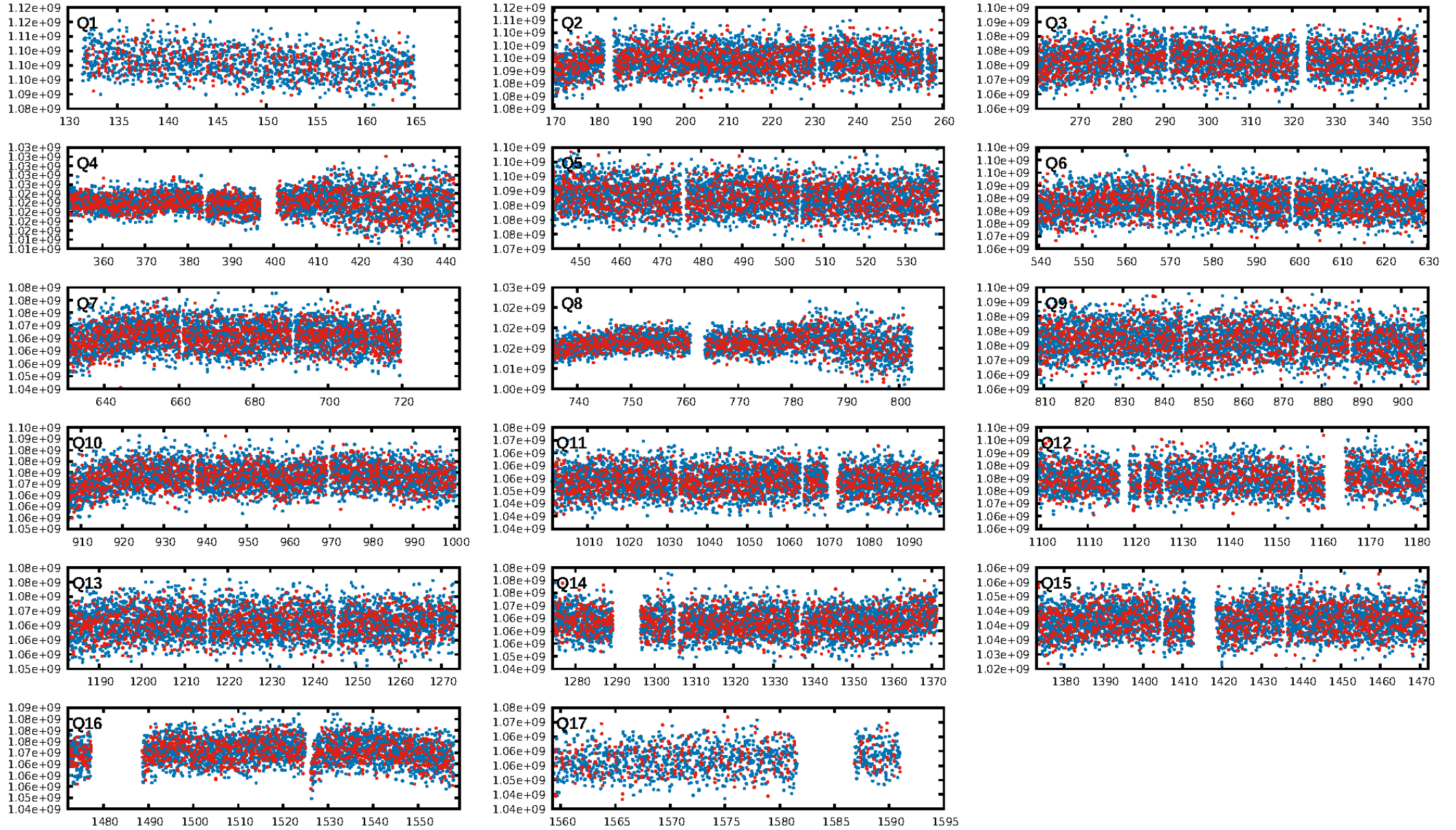
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.46 [974/2108]
GhostDiagnostic-chr: 0.6145
Centroid-sig: 0.0%
Centroid-so: 0.210 arcsec [3.56σ]
OotOffset-rm: 1.401 arcsec [1.68σ]
KicOffset-rm: 1.903 arcsec [2.50σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.50 [8/16]
DiffImageOverlap-fno: 0.00 [0/17]

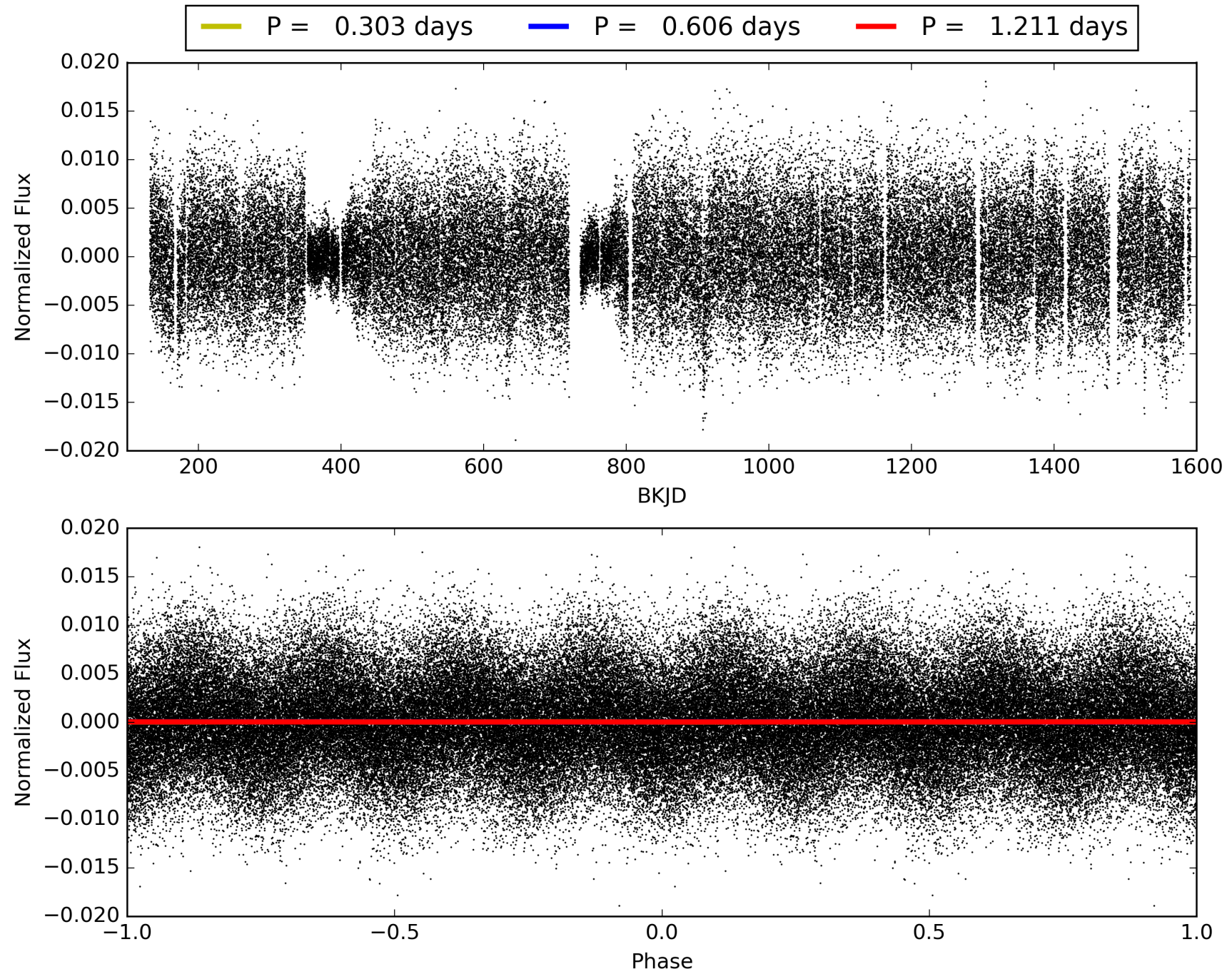
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:37:47 Z

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

TCE 010664703-02, PDC Light Curves

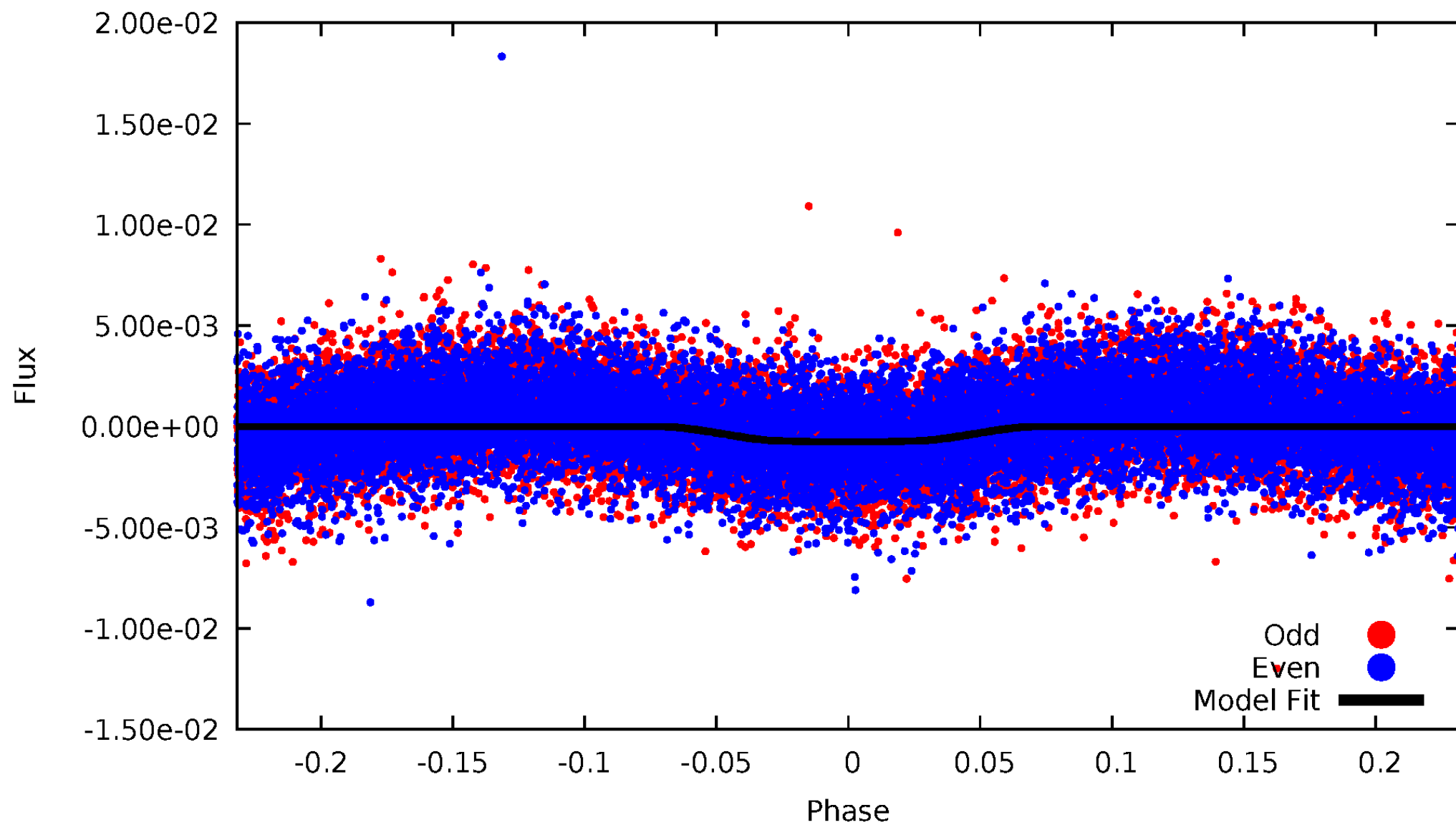


TCE 010664703-02



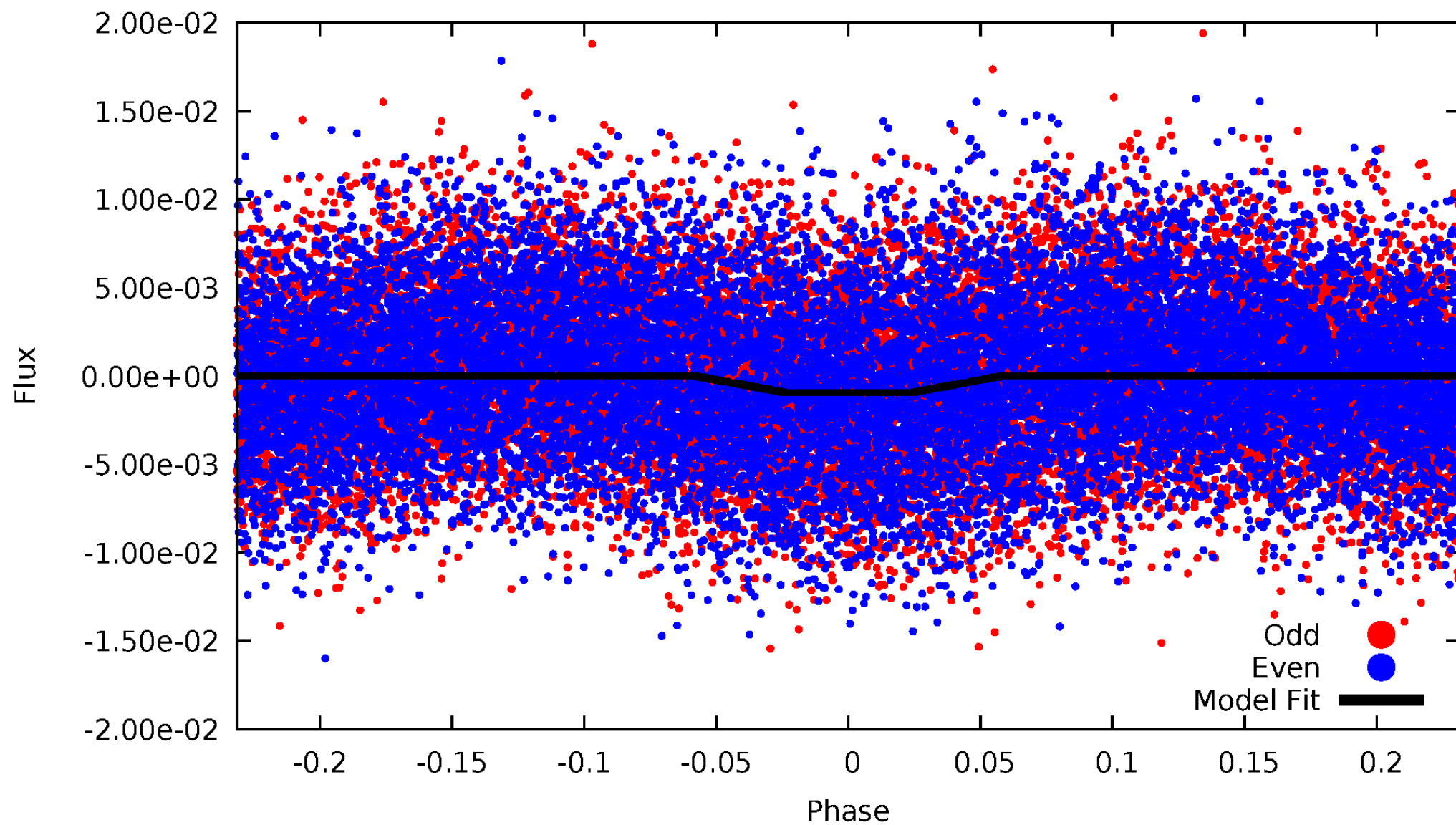
DV Odd/Even

TCE 010664703-02



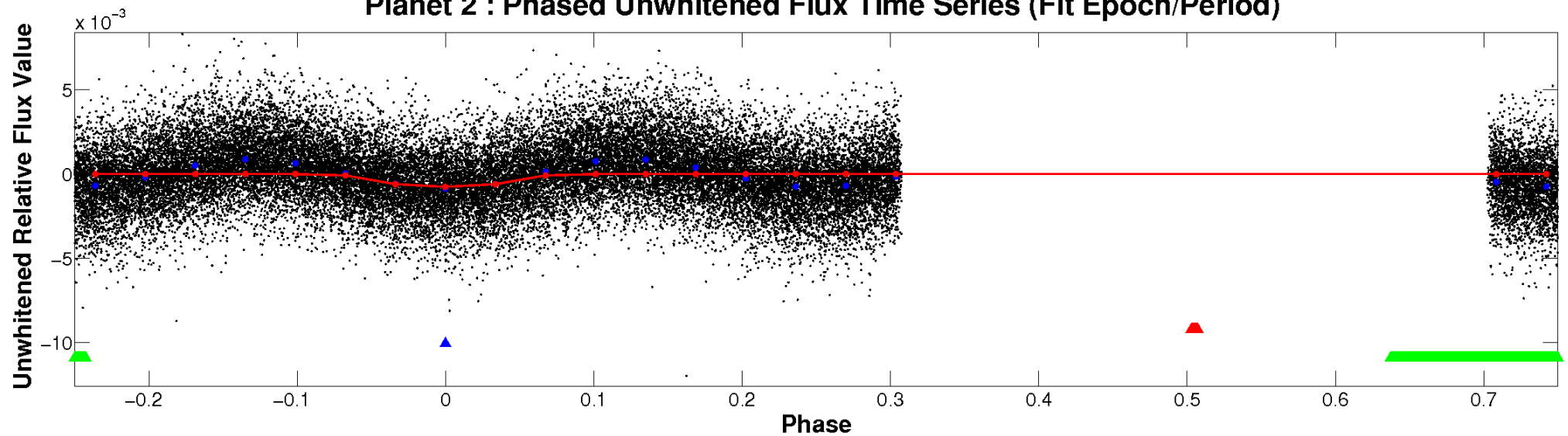
ALT Odd/Even

TCE 010664703-02

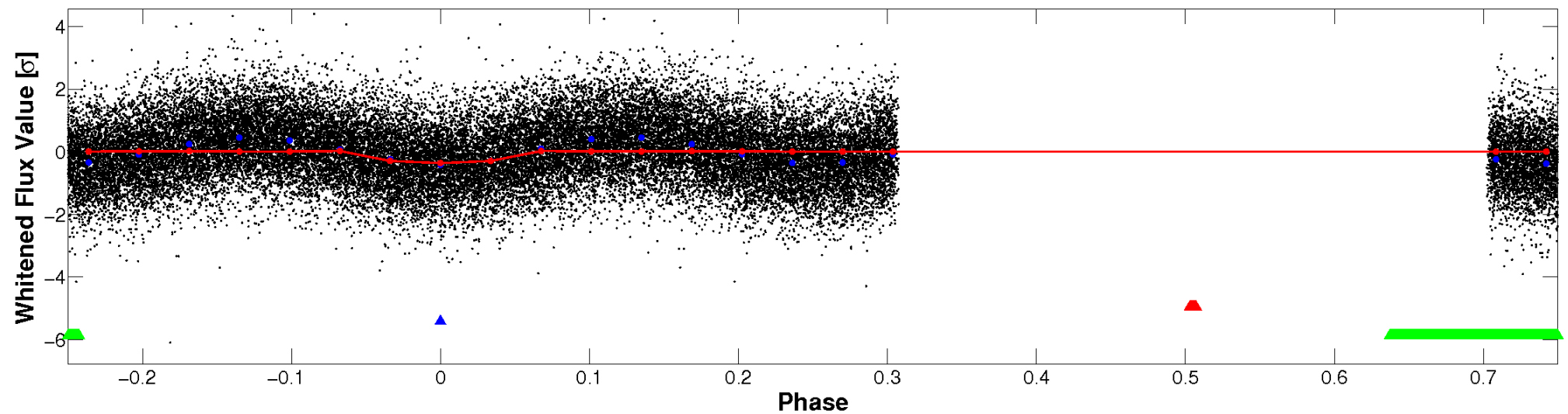


Non-Whitened Vs. Whitened Light Curve

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

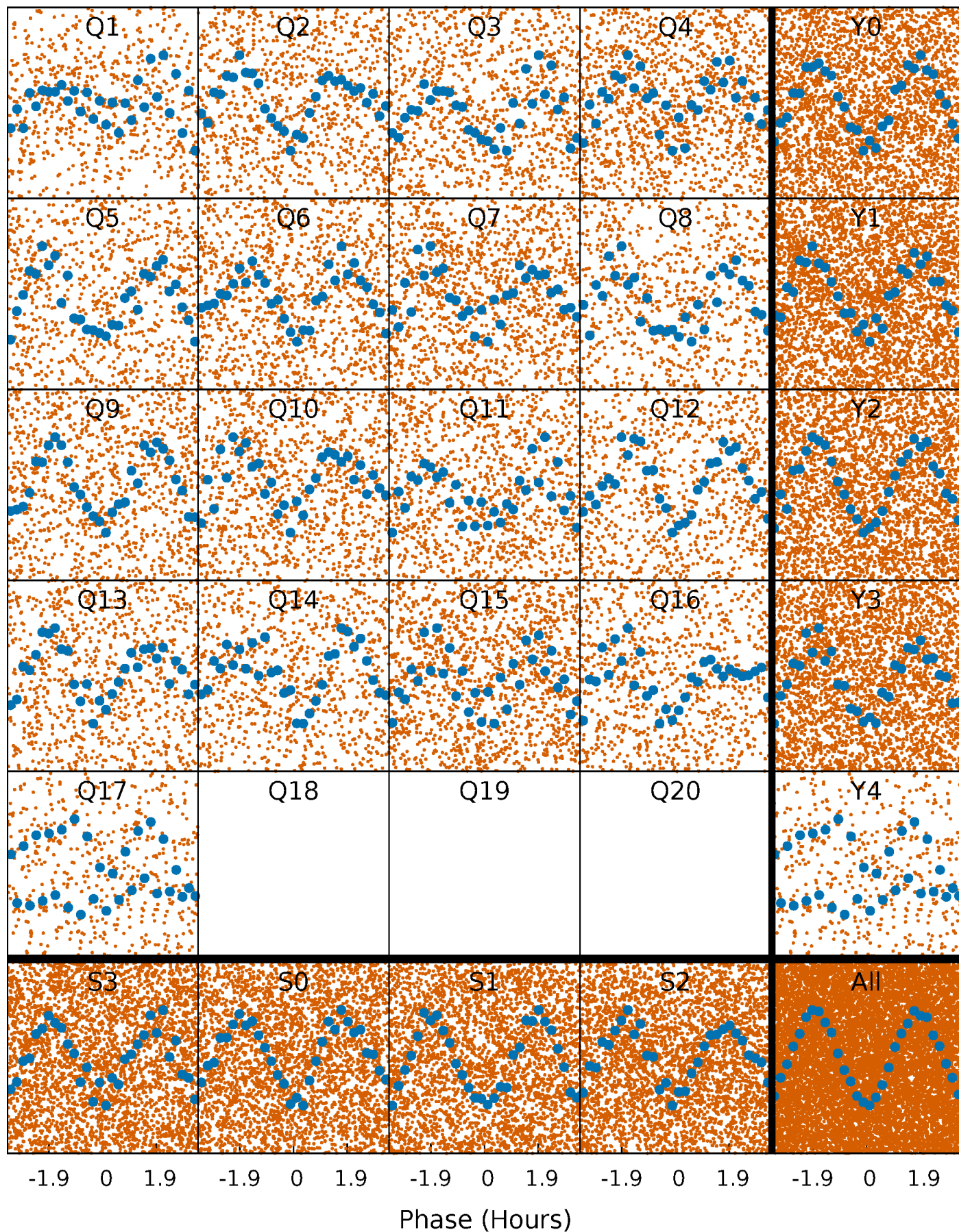


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



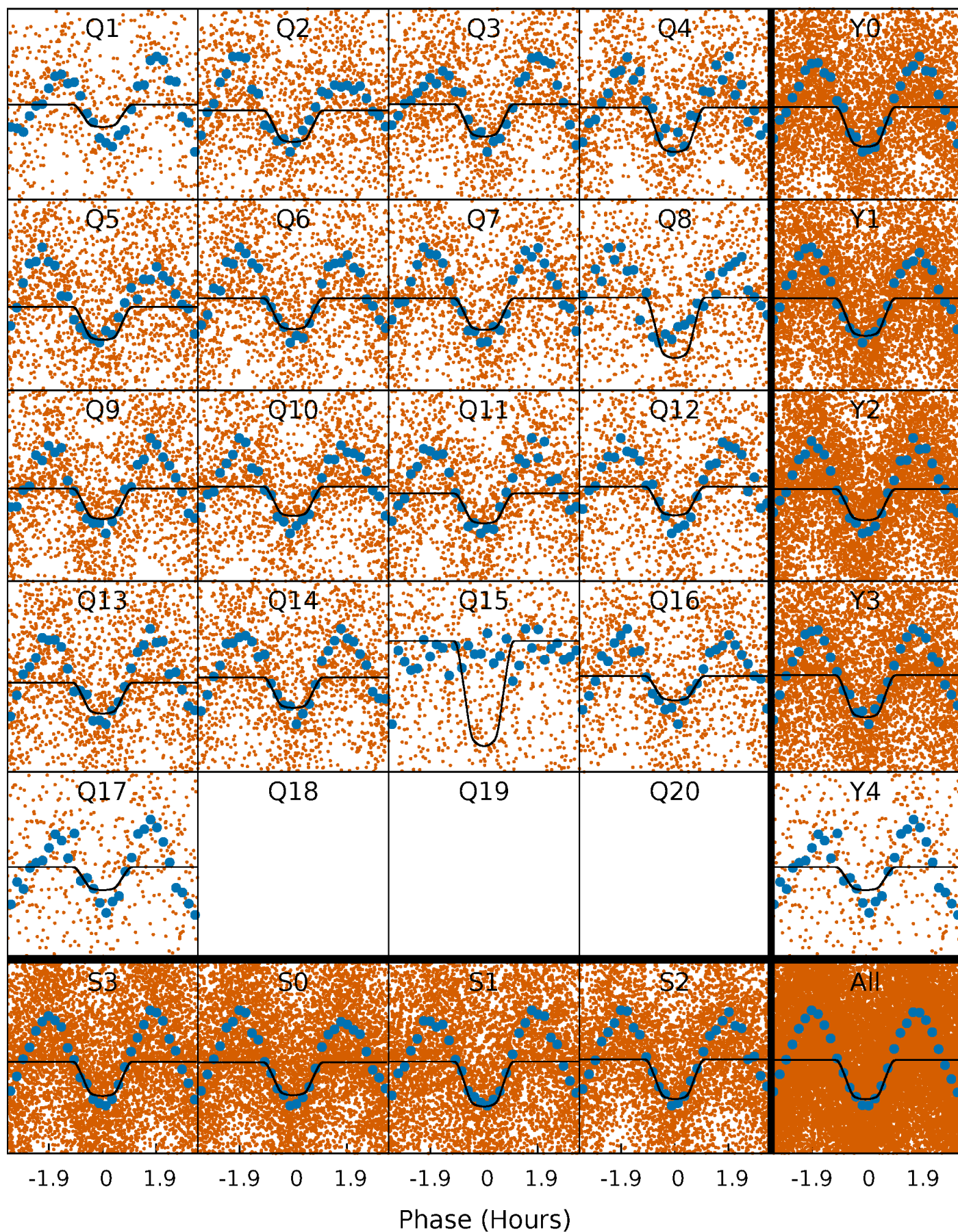
PDC Quarter-Phased Transit Curves

TCE 010664703-02 P= 0.605677 Days $T_0=131.960027$ (BKJD)



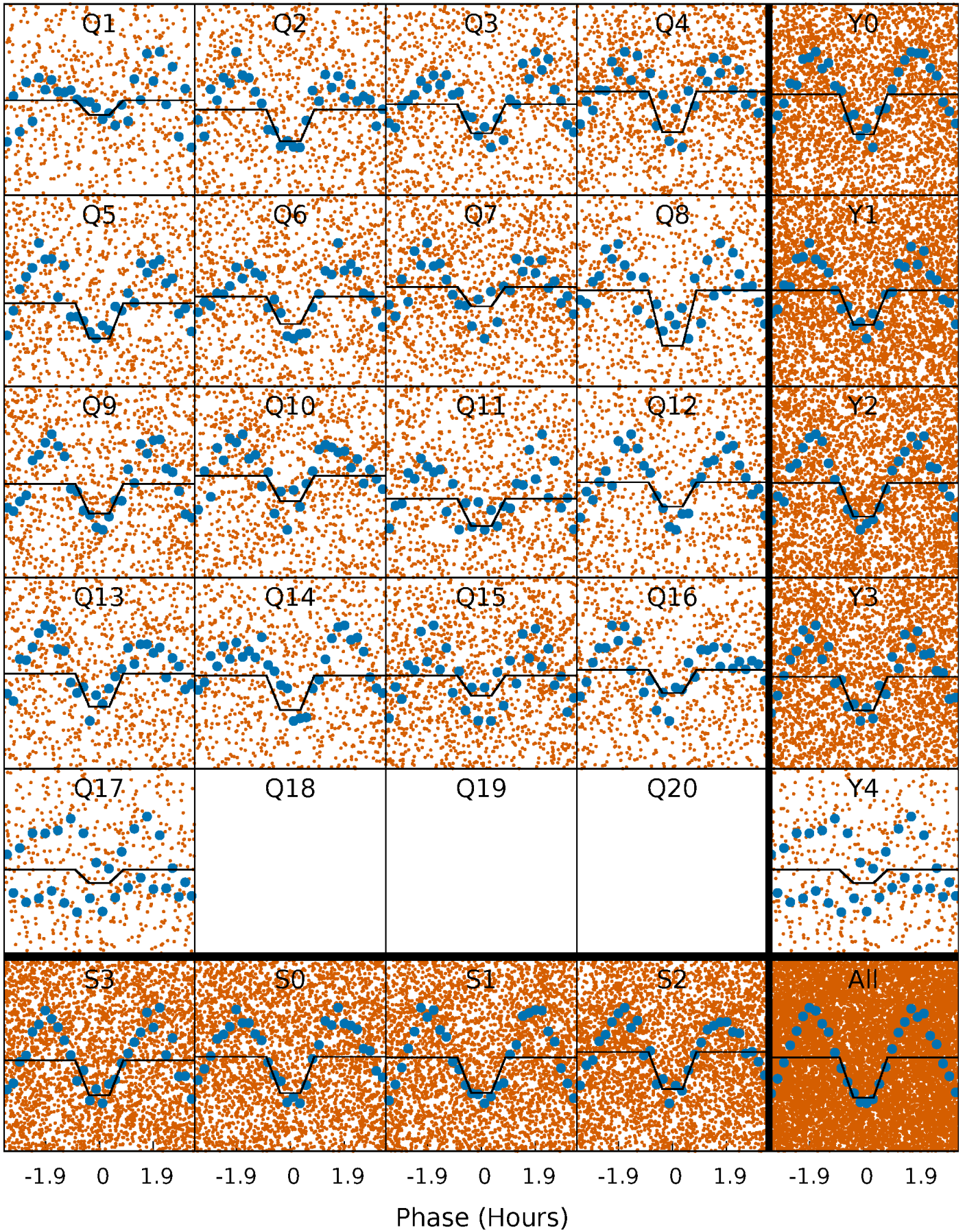
DV Quarter-Phased Transit Curves

TCE 010664703-02 P= 0.605677 Days $T_0=131.960027$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

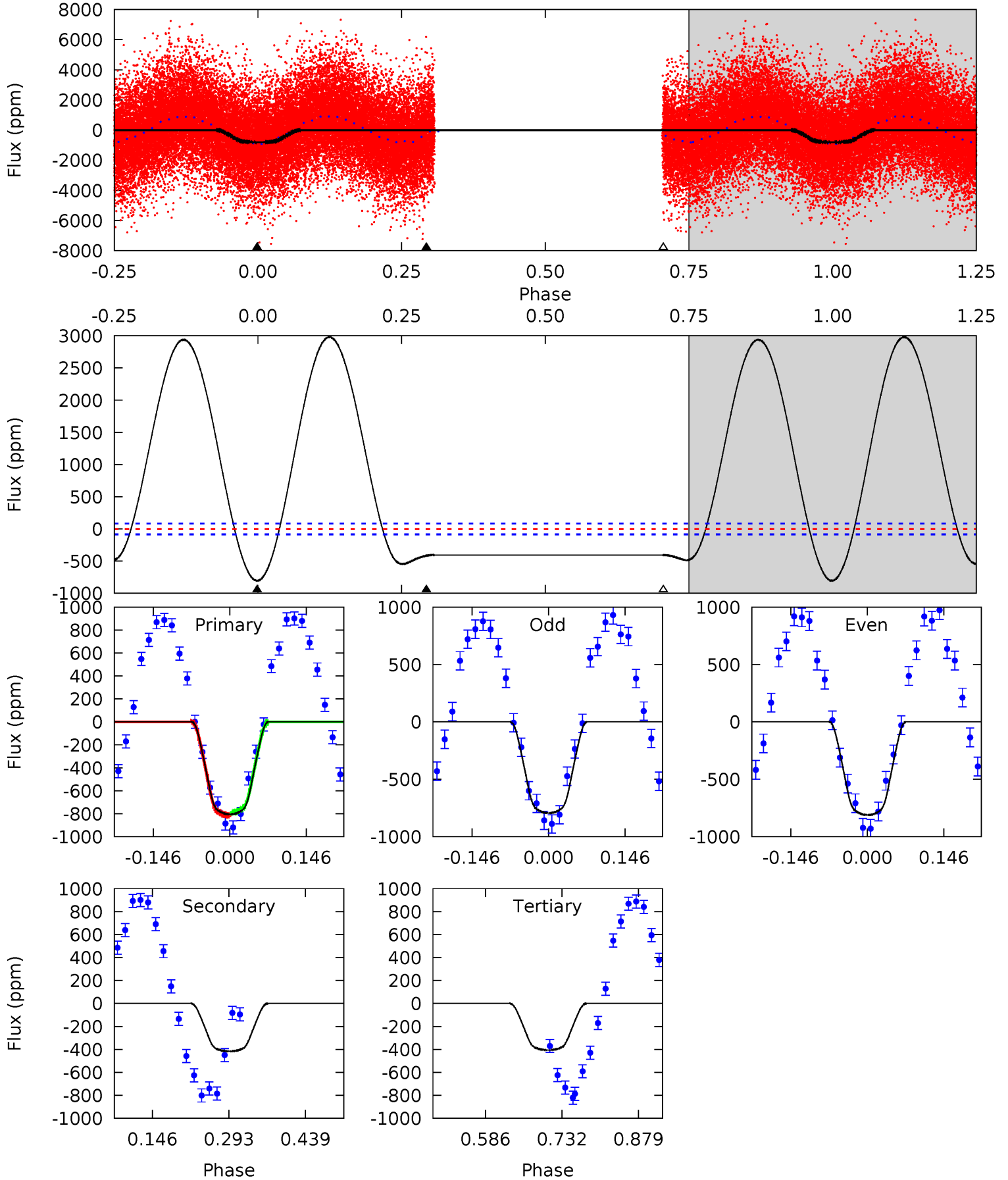
TCE 010664703-02 P= 0.605678 Days $T_0=131.959268$ (BKJD)



DV Model-Shift Uniqueness Test

010664703-02, P = 0.605677 Days, E = 131.354350 Days

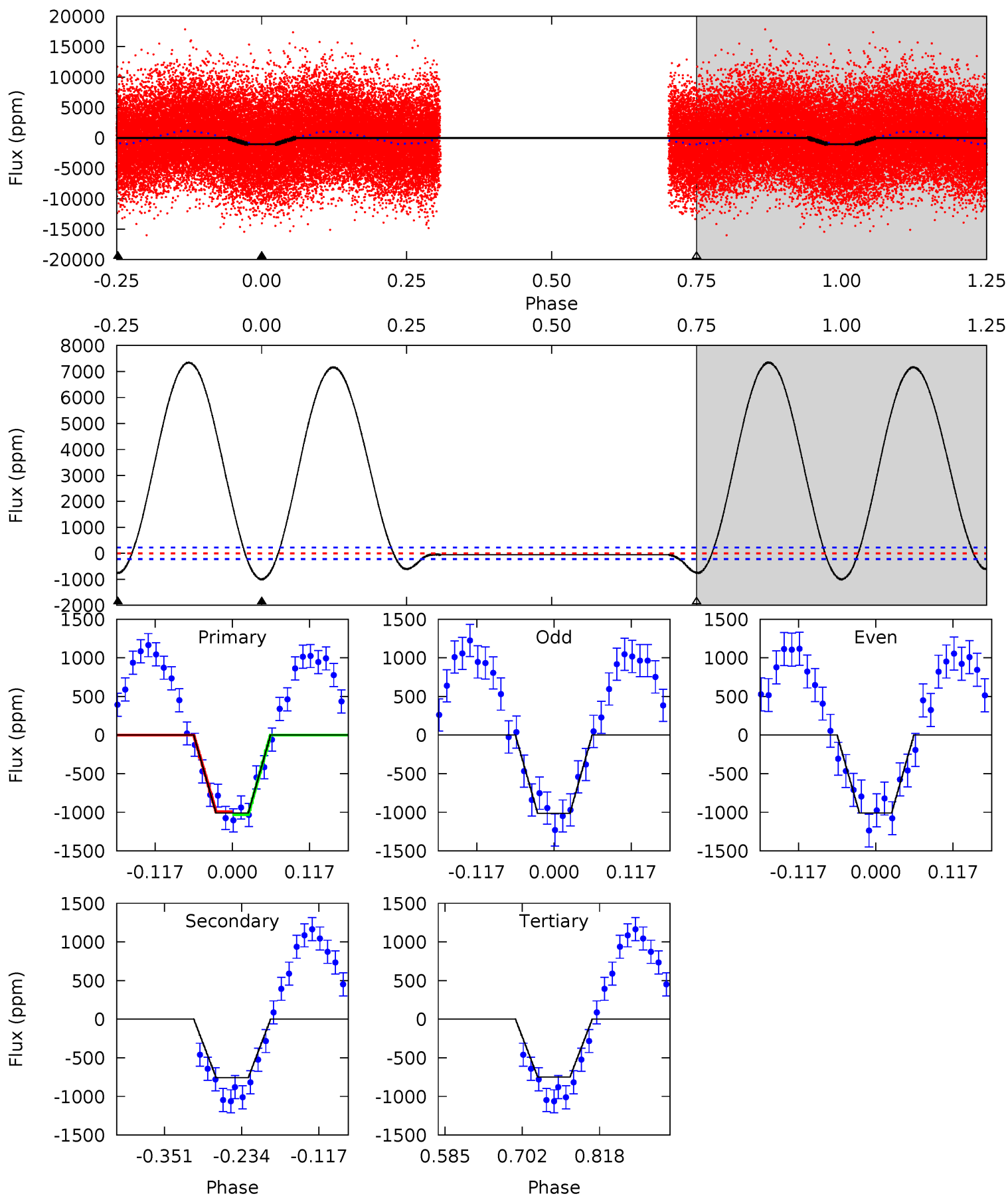
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.7	22.1	21.5	0	4.48	1.45	59.0	21.2	42.7	0.57	22.1	0.44	1.01	0.79	0.71



Alt Model-Shift Uniqueness Test

010664703-02, P = 0.605678 Days, E = 131.353590 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.7	15.5	15.3	0	4.53	1.57	61.7	5.34	20.7	0.14	15.5	0.04	0.95	0.88	0.38



Stellar Parameters For KIC 010664703

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7868^{+217}_{-353}	$3.683^{+0.459}_{-0.108}$	$-0.020^{+0.200}_{-0.350}$	$3.433^{+0.718}_{-1.555}$	$2.074^{+0.343}_{-0.514}$	$0.072^{+0.316}_{-0.025}$
	+3%/-4%	+12%/-3%	+1000%/-1750%	+21%/-45%	+17%/-25%	+437%/-35%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010664703-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-417 ± 19	$10.24^{+2.20}_{-2.35}$	6471^{+511}_{-770}	5561^{+515}_{-627}	$0.695^{+0.447}_{-0.197}$
Alt.	-757 ± 49	$10.84^{+1.95}_{-2.85}$	6486^{+531}_{-775}	6780^{+587}_{-546}	$1.147^{+0.817}_{-0.309}$

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

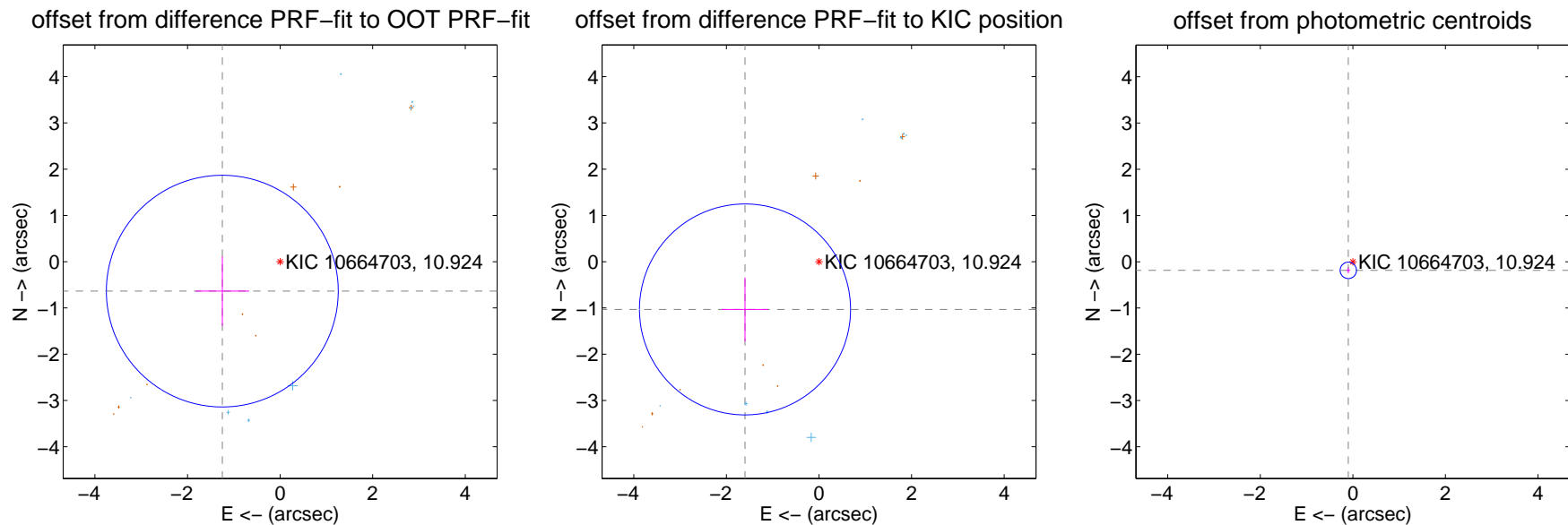
DV Centroid Data

Supplemental centroid analysis for 010664703-02. **Kepler magnitude: 10.92.** Transit SNR 26.56

There are 8 quarters with good PRF difference image offsets

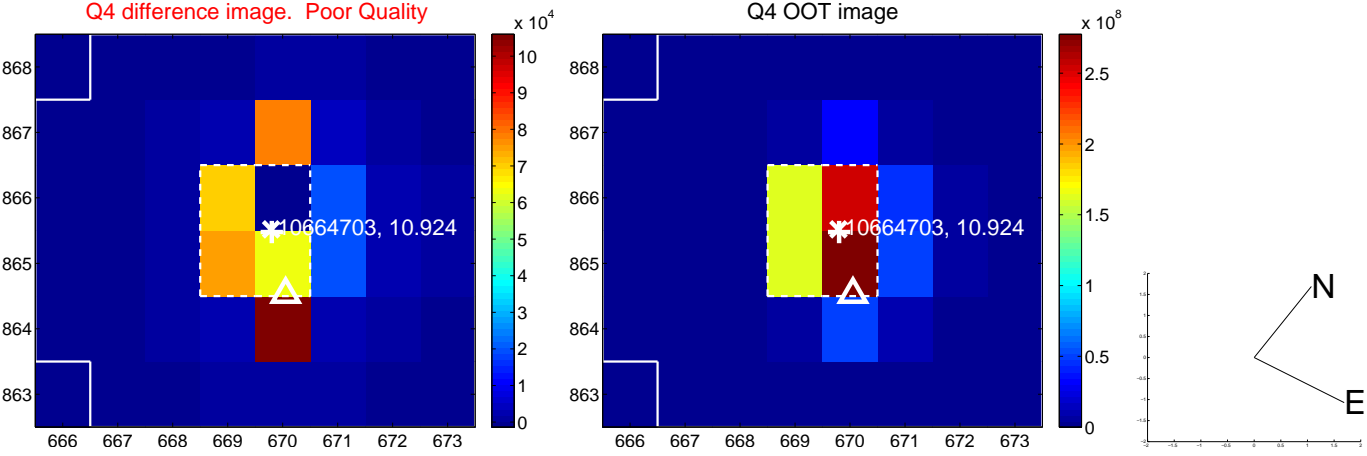
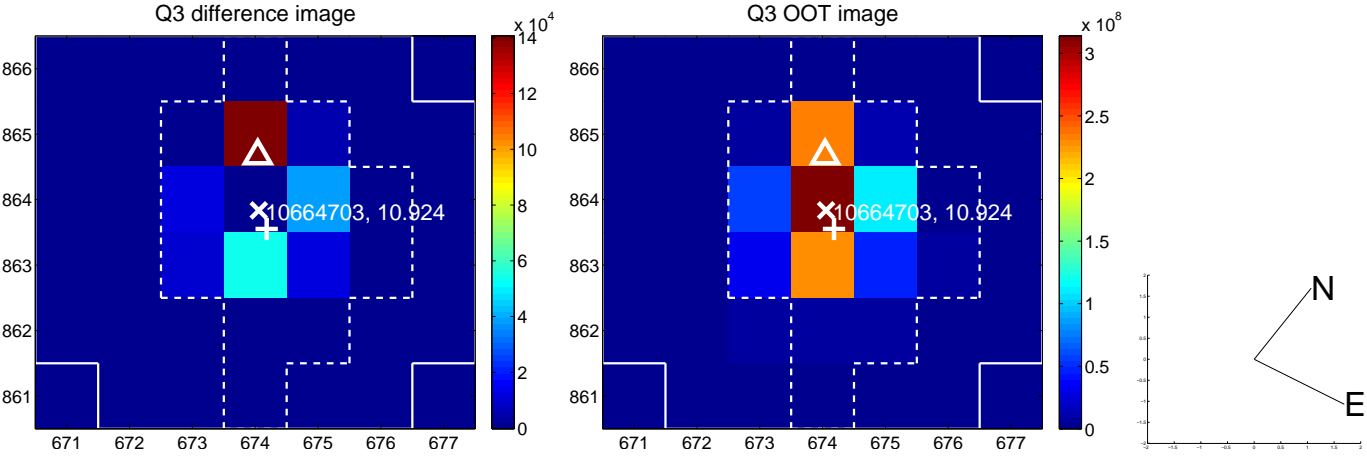
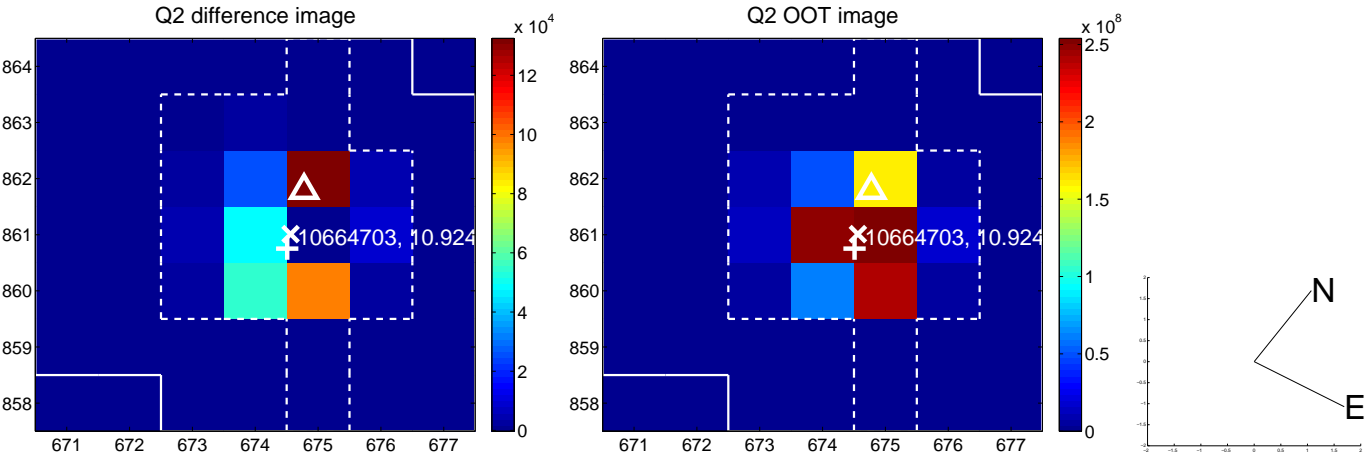
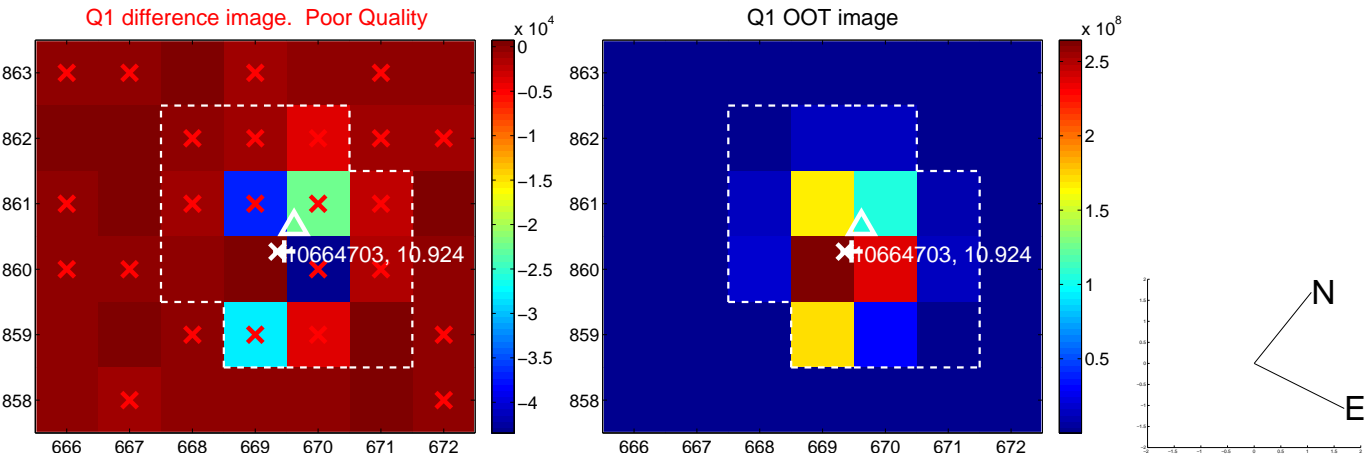
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.401 ± 0.835	1.68	1.249 ± 0.583	-0.636 ± 0.750
PRF-fit source offset from KIC position	1.903 ± 0.760	2.50	1.598 ± 0.501	-1.032 ± 0.690
photometric centroid source offset	0.21 ± 0.06	3.56	0.10 ± 0.04	-0.19 ± 0.06

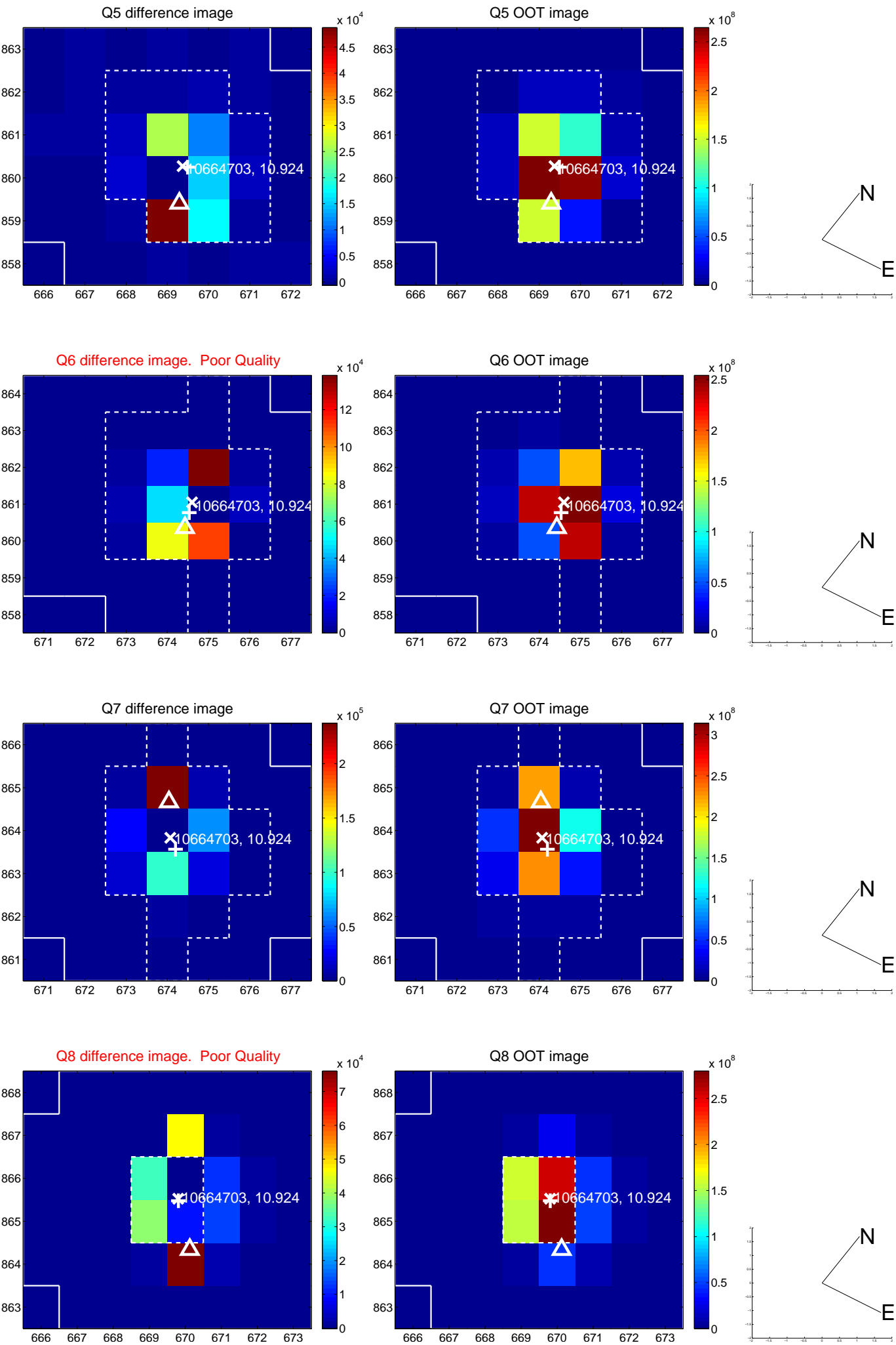


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

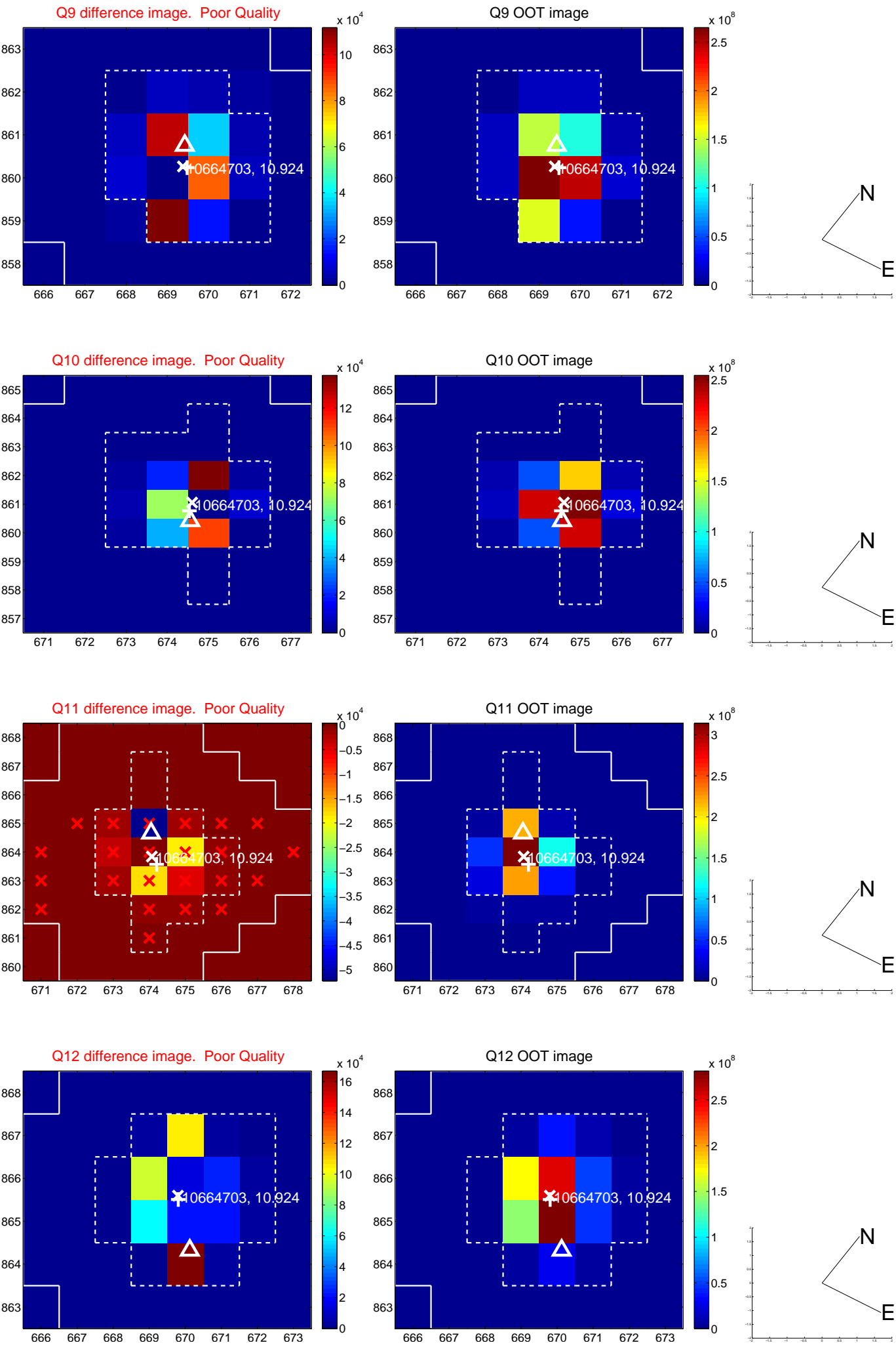
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



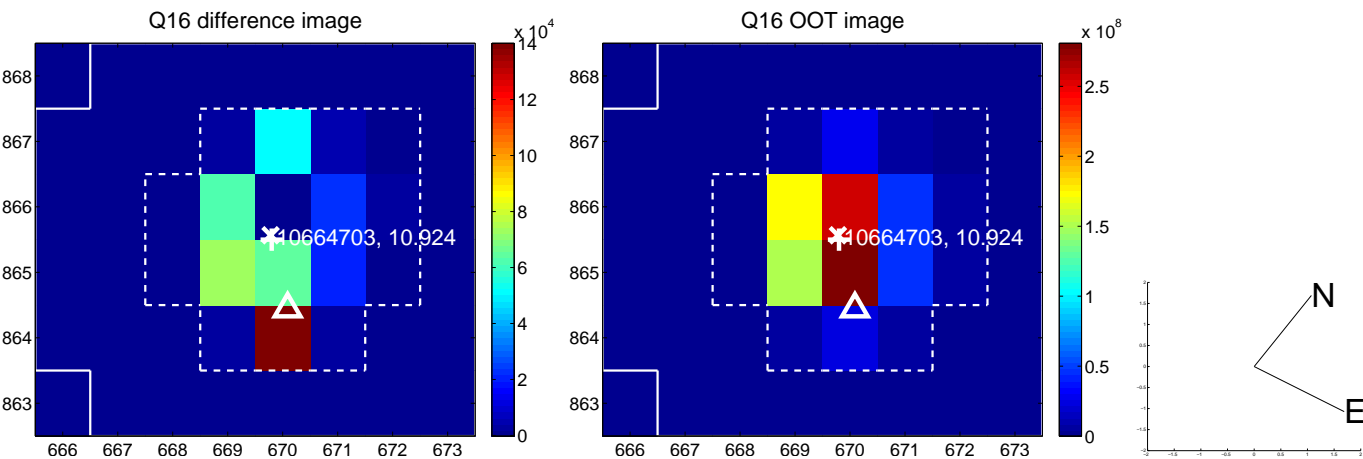
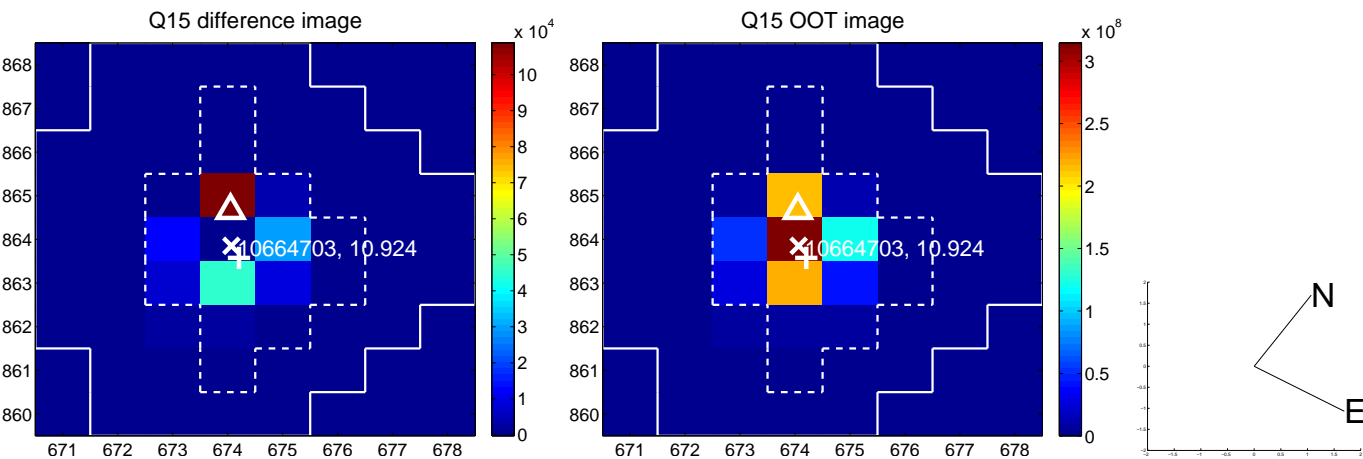
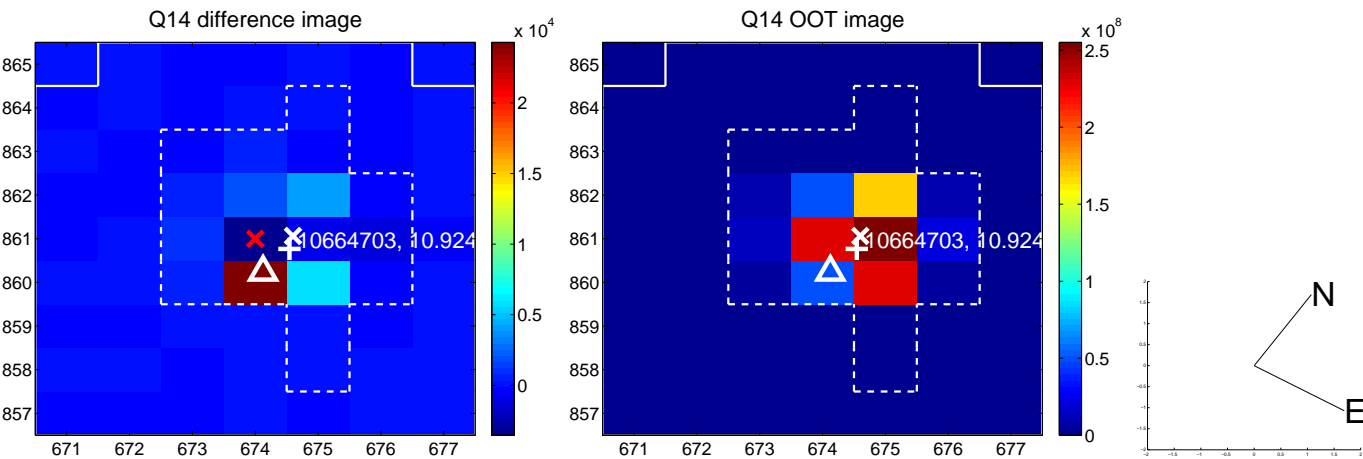
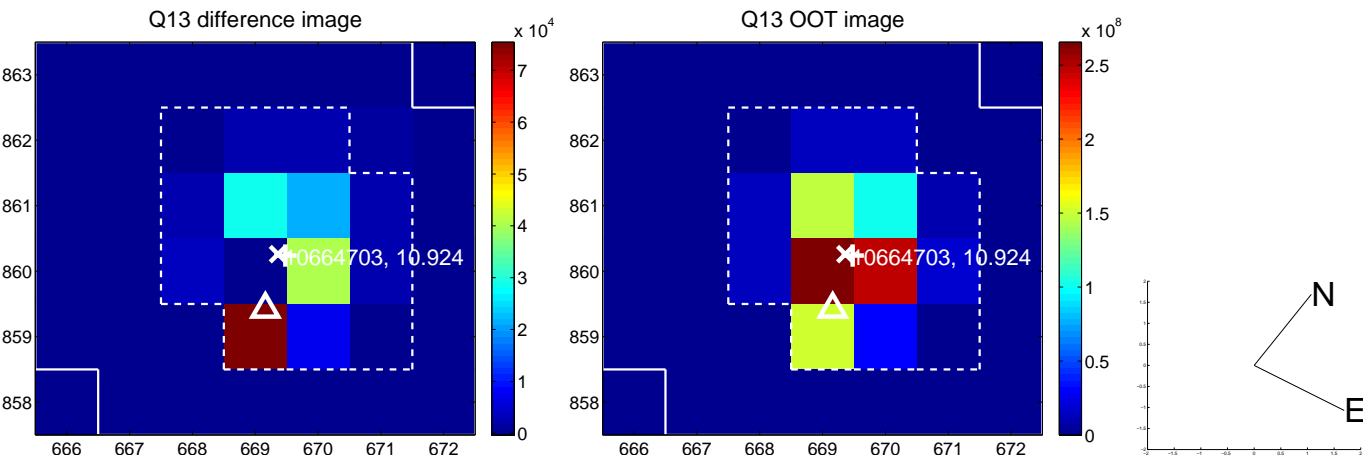
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



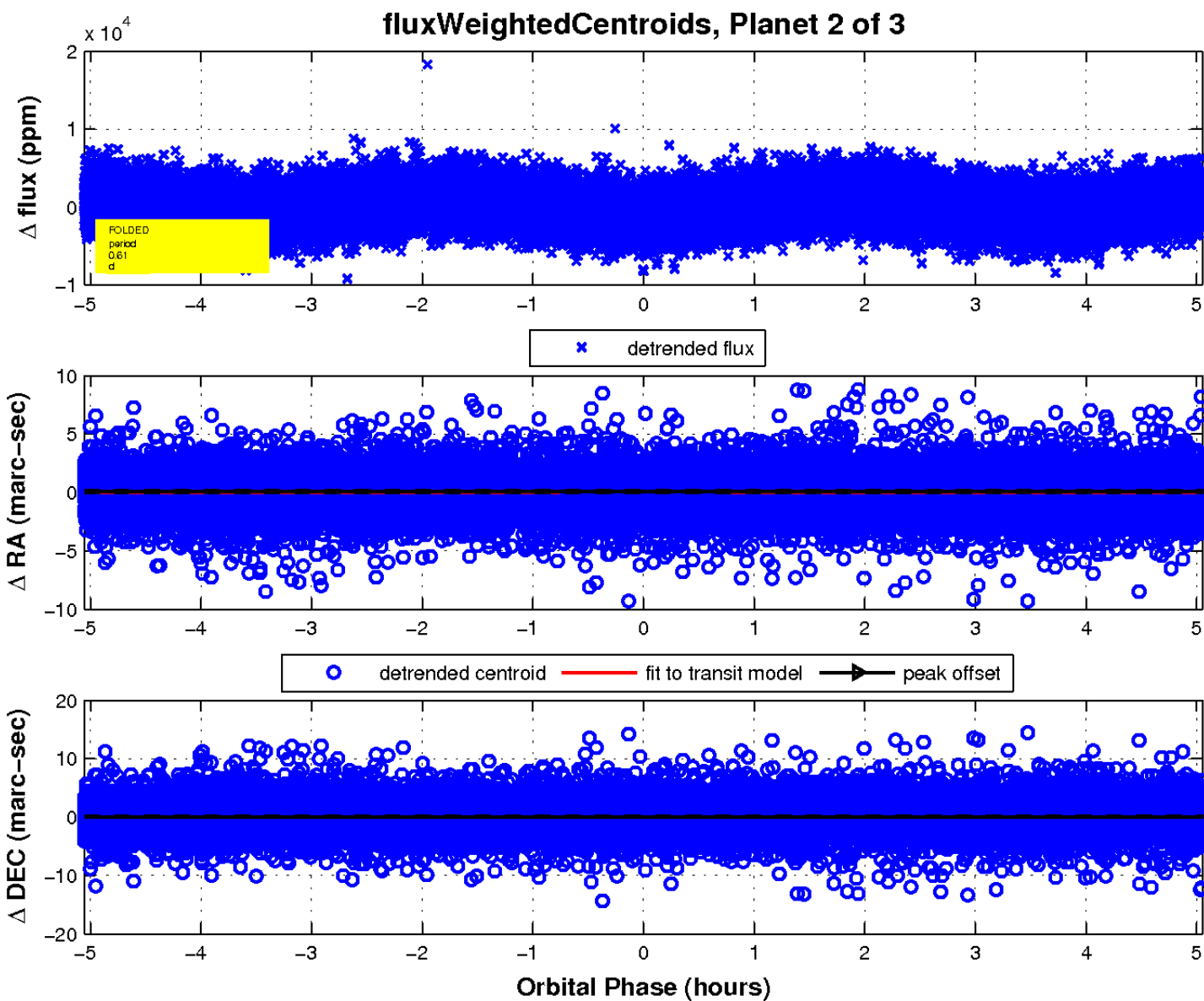
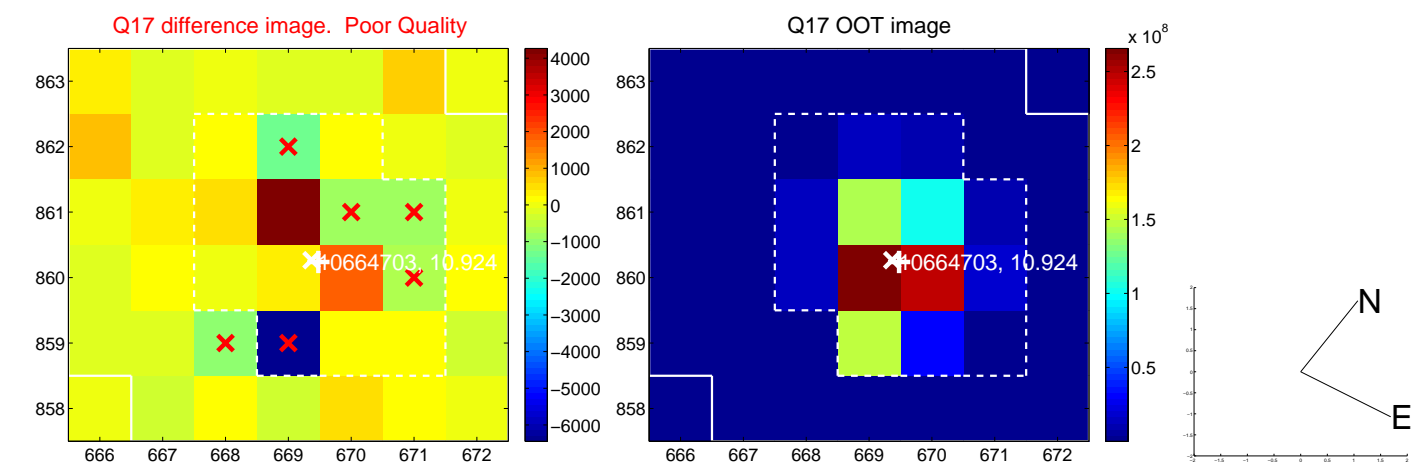
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

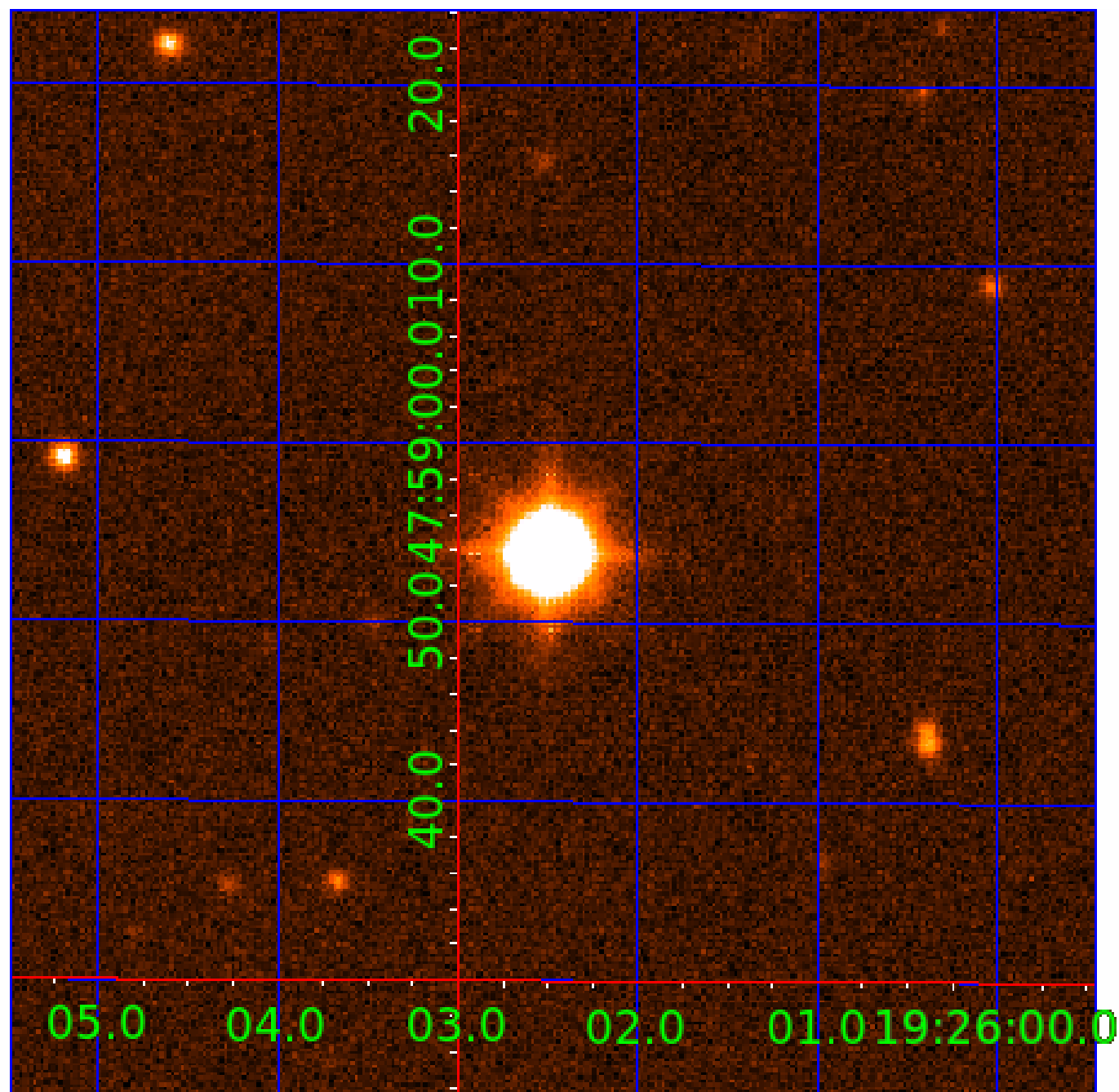


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010664703

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})
010664703-01	OBS	No	0.605676	131.661572	734.7	1.767	20.5	24.4	3.43	7868	10.87	126808.09
010664703-02	OBS	No	0.605677	131.960027	761.4	1.685	21.3	26.6	3.43	7868	11.07	126807.79
010664703-03	OBS	No	0.605647	131.813082	662.5	2.779	18.1	19.9	3.43	7868	10.31	126816.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010664703-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_SATURATED—HALO_GHOST
010664703-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
010664703-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

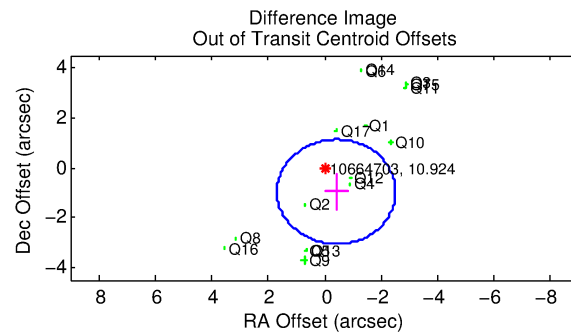
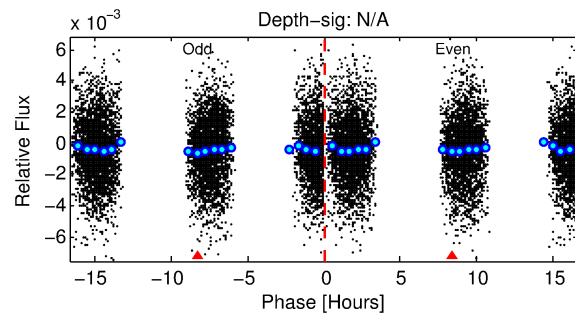
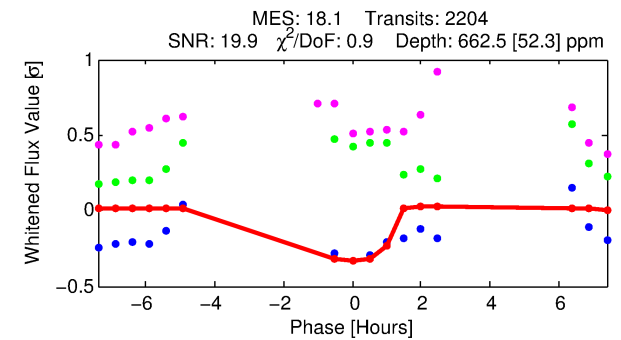
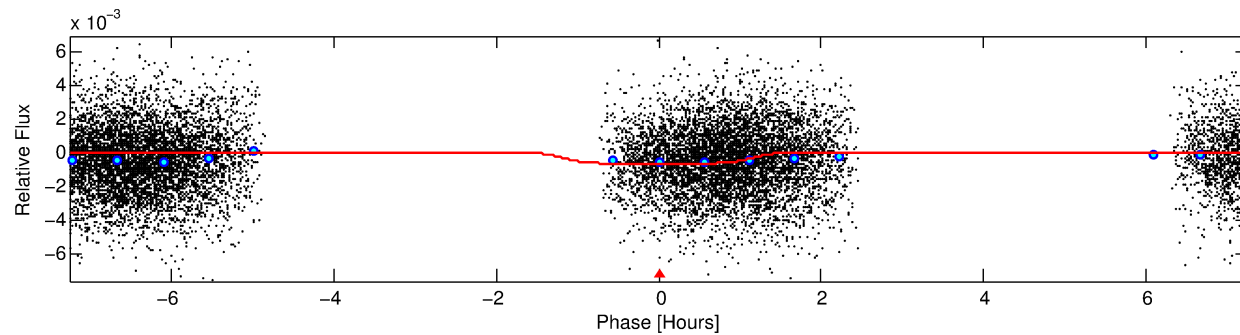
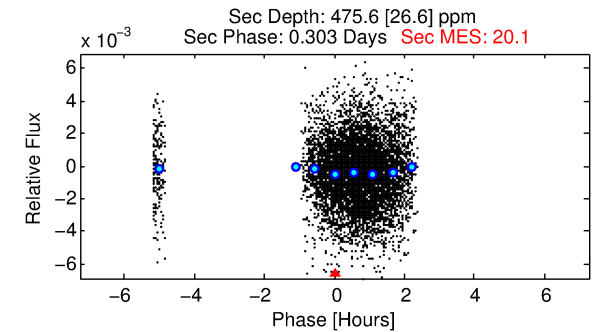
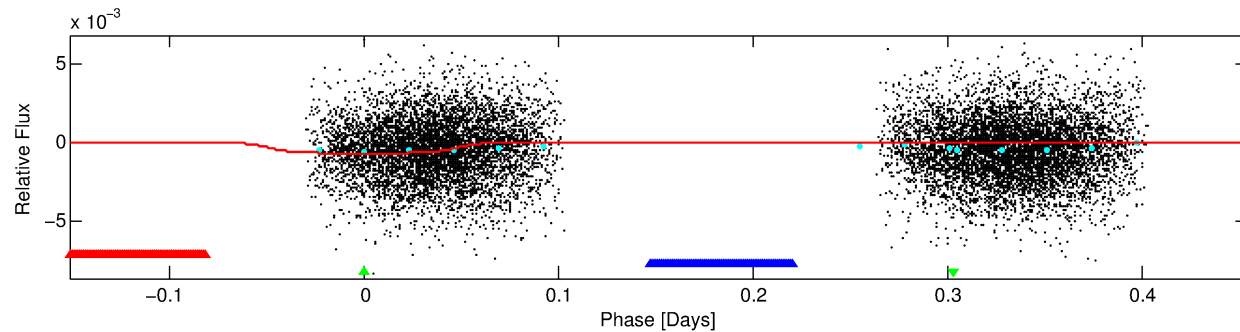
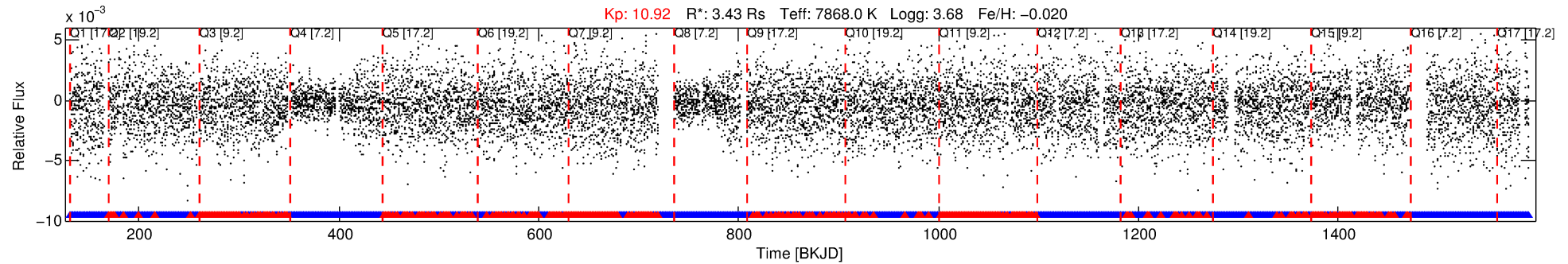
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010664703-03

No Significant Match Found

DV One-Page Summary

KIC: 10664703 Candidate: 3 of 3 Period: 0.606 d



DV Fit Results:

Period = 0.60565 [0.00001] d
Epoch = 131.8131 [0.0086] BKJD
Rp/R* = 0.0275 [0.0032]
a/R* = 1.26 [0.35]
b = 0.90 [0.13]
Seff = 126816.22 [99842.42]
Teq = 4812 [947] K
Rp = 10.31 [4.82] Re
a = 0.0179 [0.0083] AU
Ag = 0.79 [0.63] [-0.34σ]
Teffp = 7004 [527] K [2.02σ]

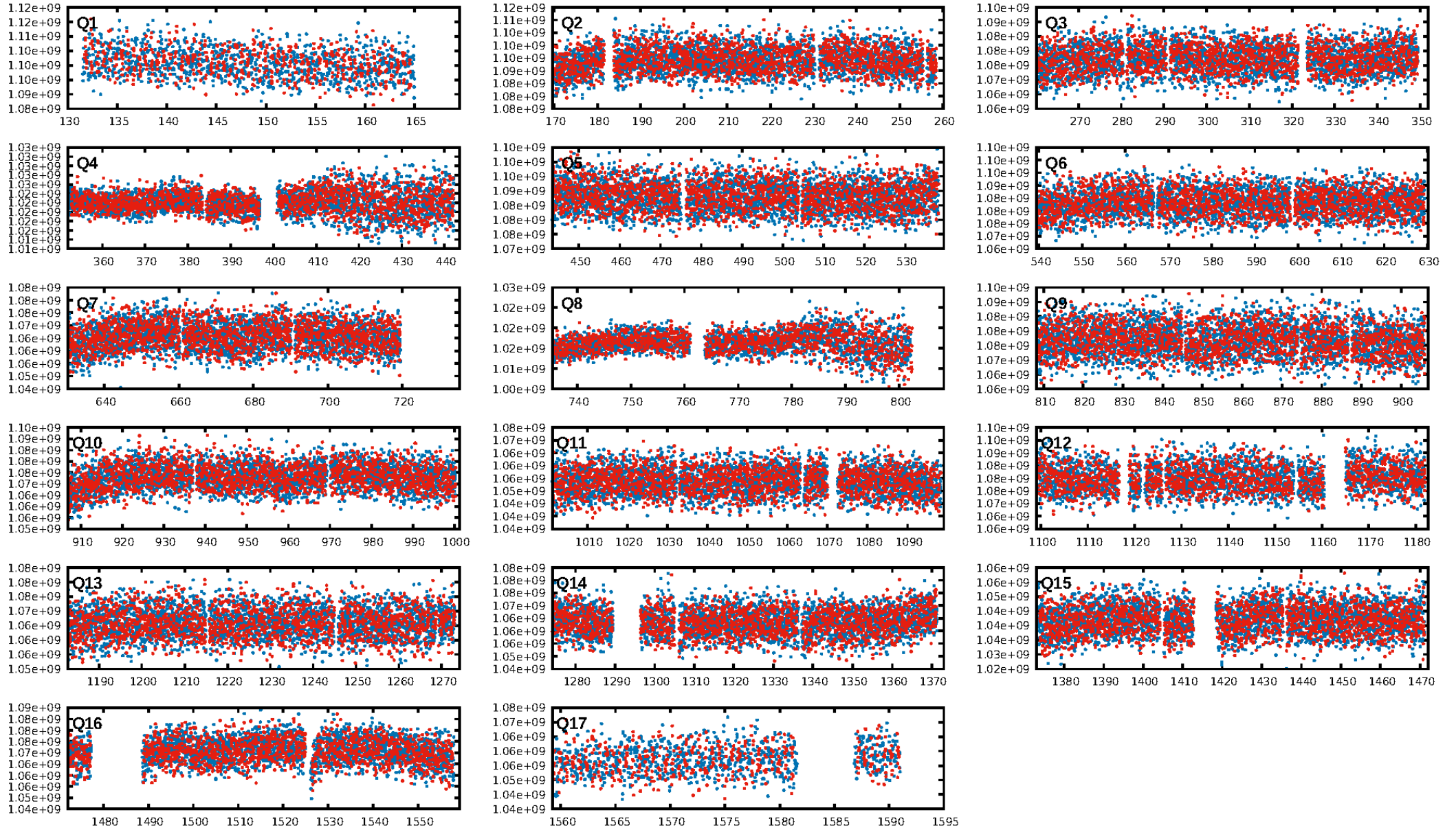
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.74 [1565/2106]
GhostDiagnostic-chr: 2.718
Centroid-sig: 0.9%
Centroid-so: 0.345 arcsec [8.06σ]
OotOffset-rm: 1.050 arcsec [1.50σ]
KicOffset-rm: 1.277 arcsec [1.97σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.35 [6/17]
DiffImageOverlap-fno: 0.00 [0/17]

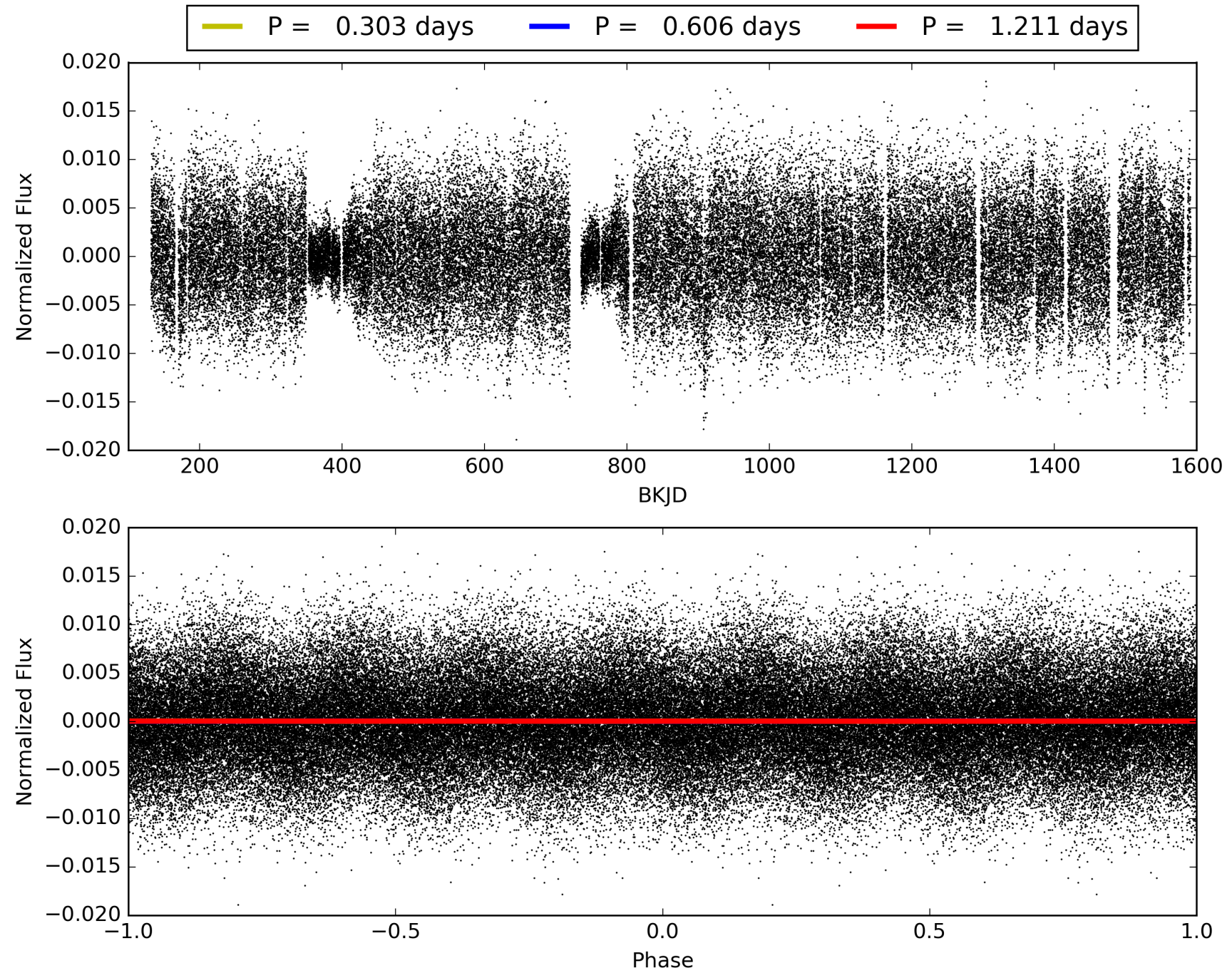
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:37:58 Z

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

TCE 010664703-03, PDC Light Curves

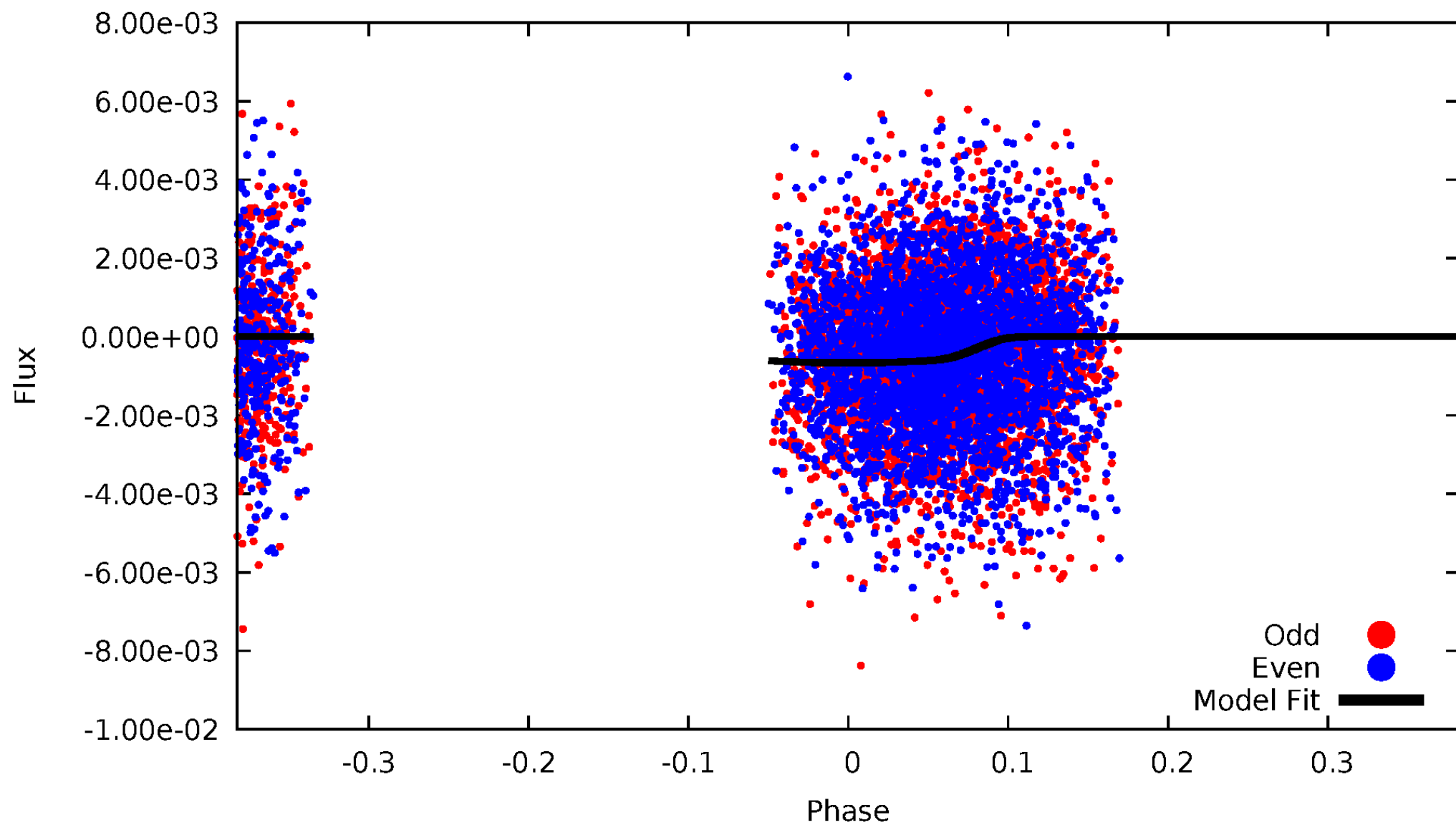


TCE 010664703-03



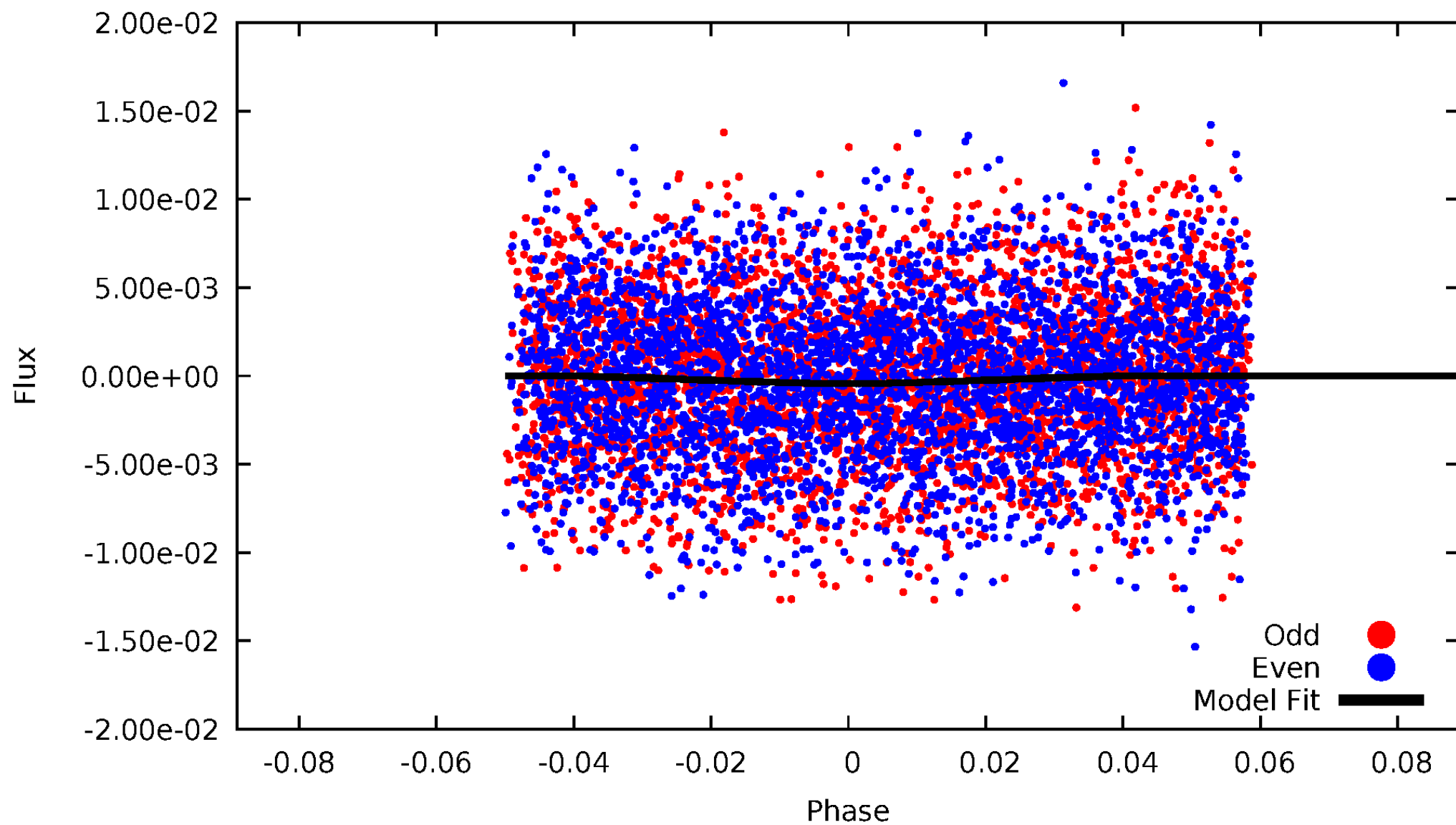
DV Odd/Even

TCE 010664703-03



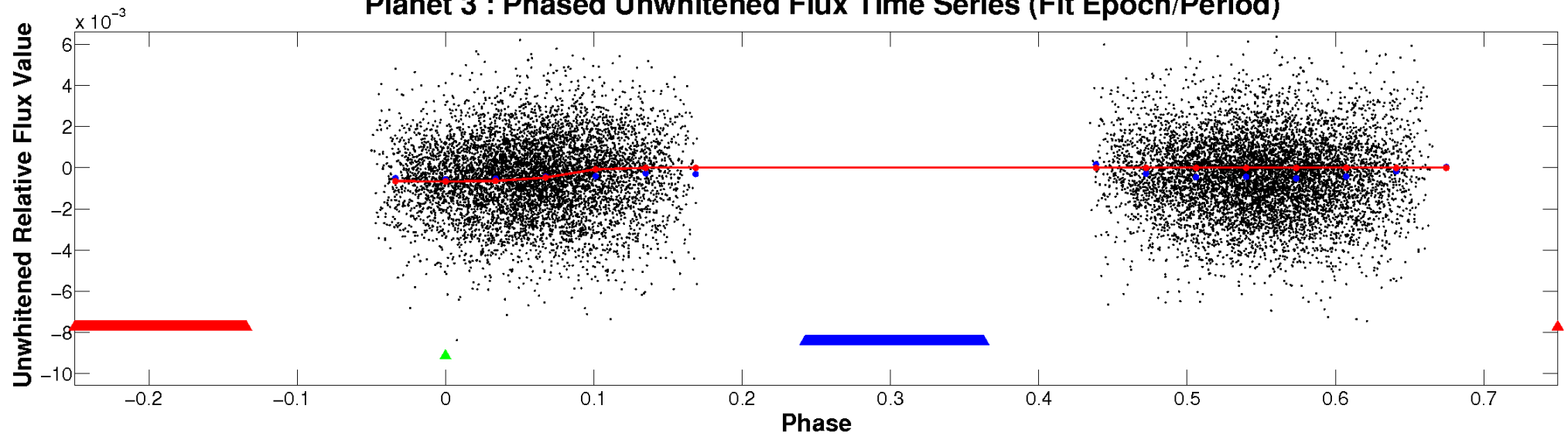
ALT Odd/Even

TCE 010664703-03

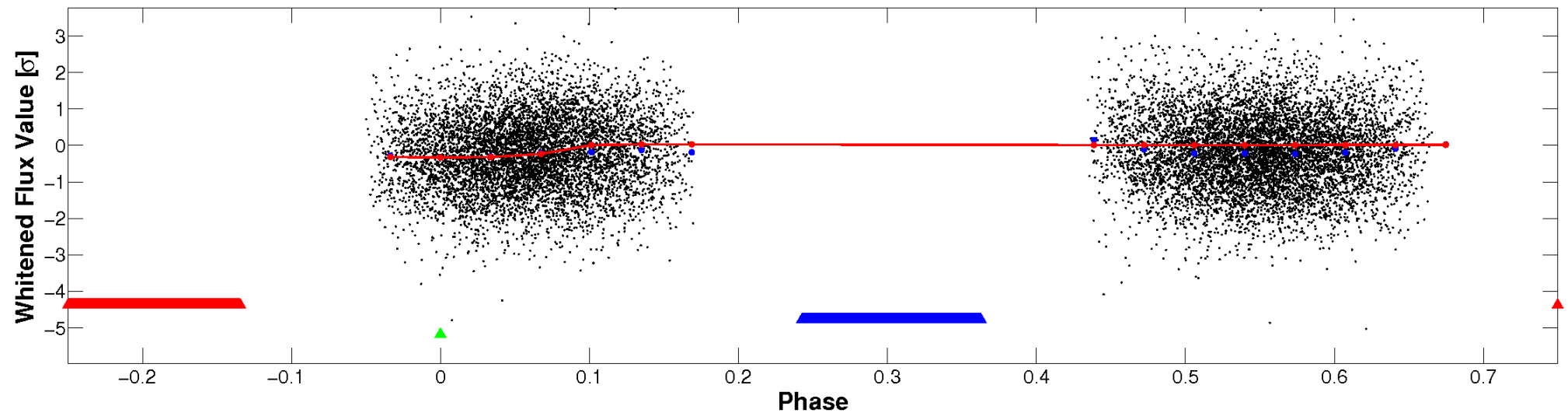


Non-Whitened Vs. Whitened Light Curve

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

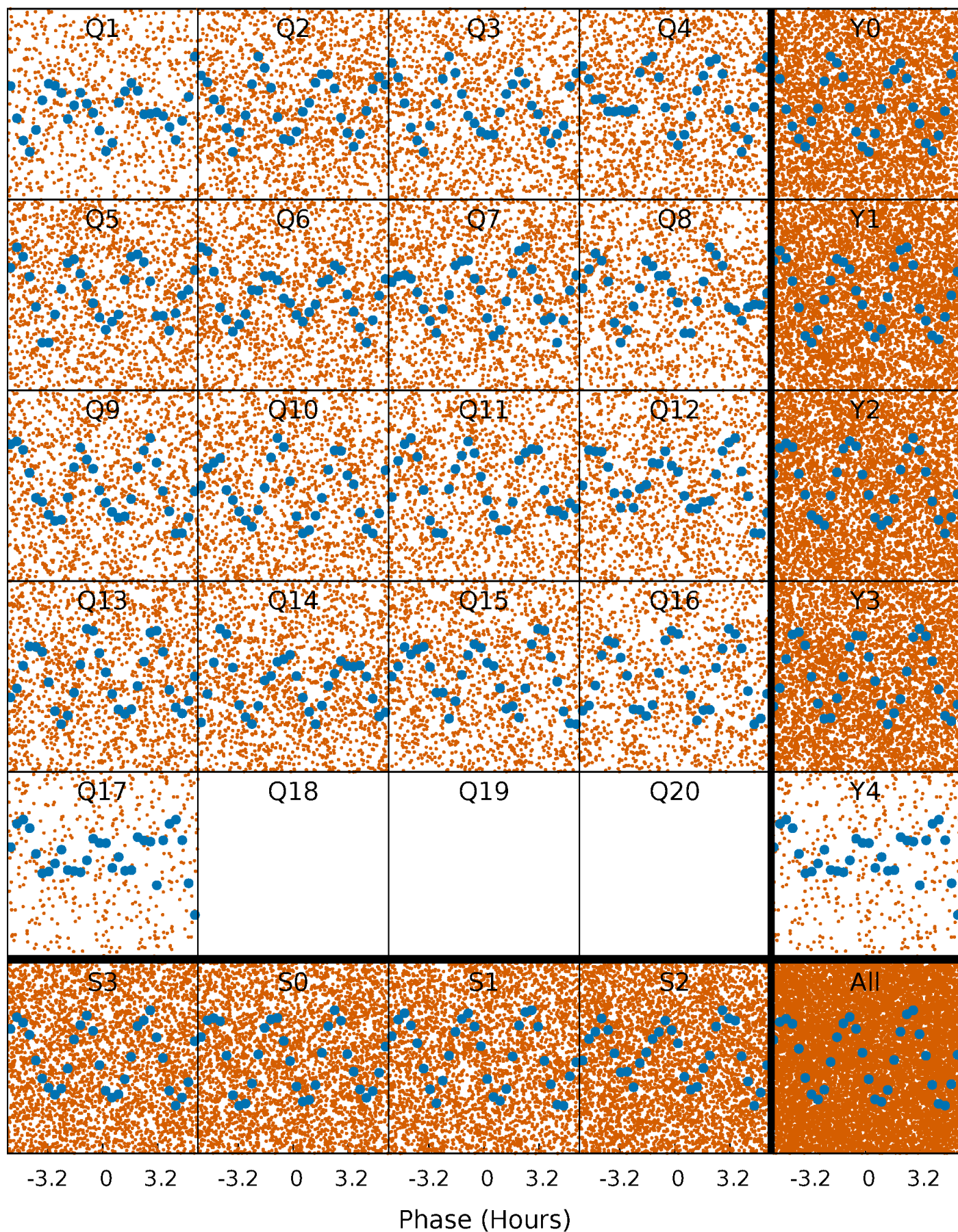


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



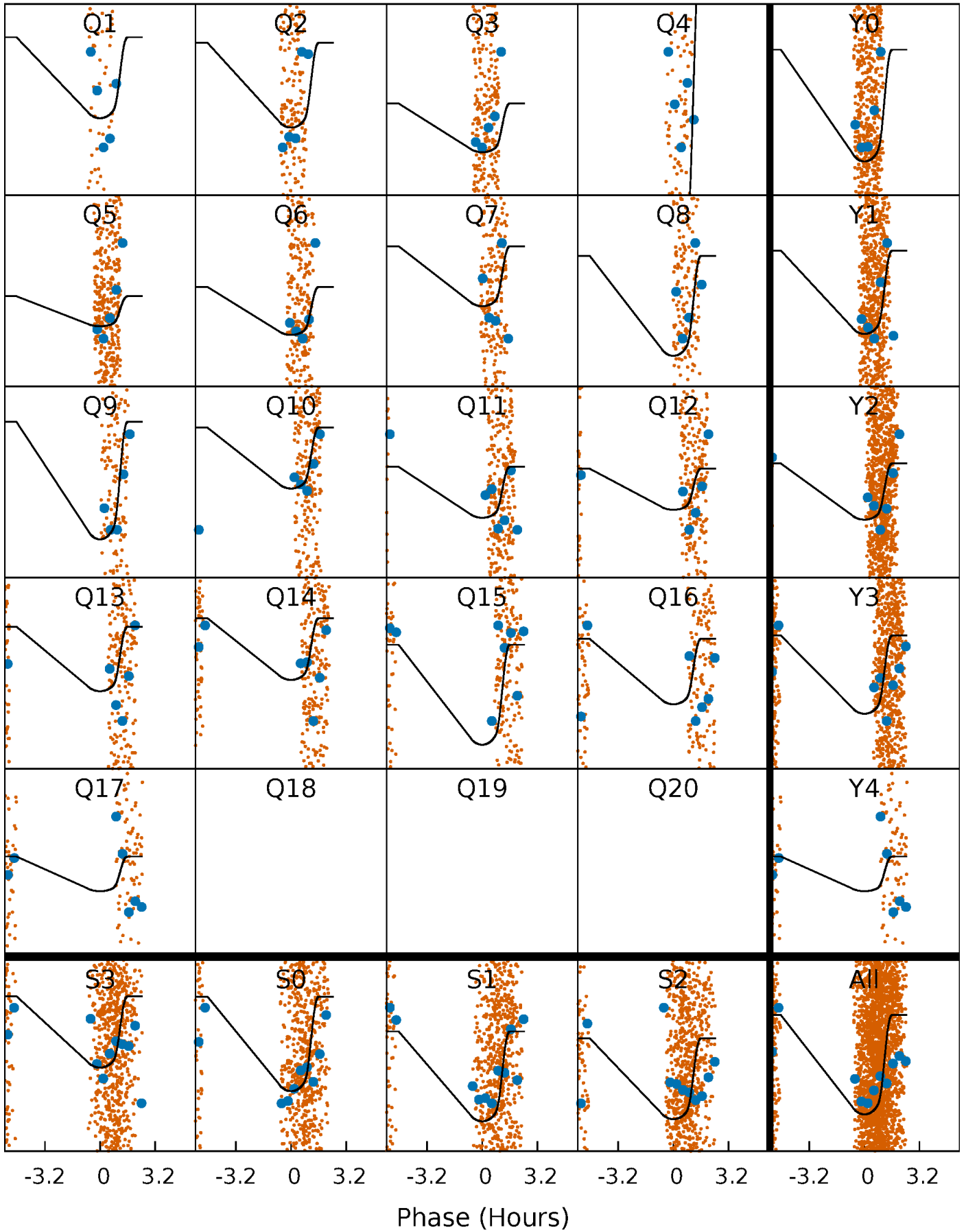
PDC Quarter-Phased Transit Curves

TCE 010664703-03 P= 0.605647 Days $T_0=131.813082$ (BKJD)



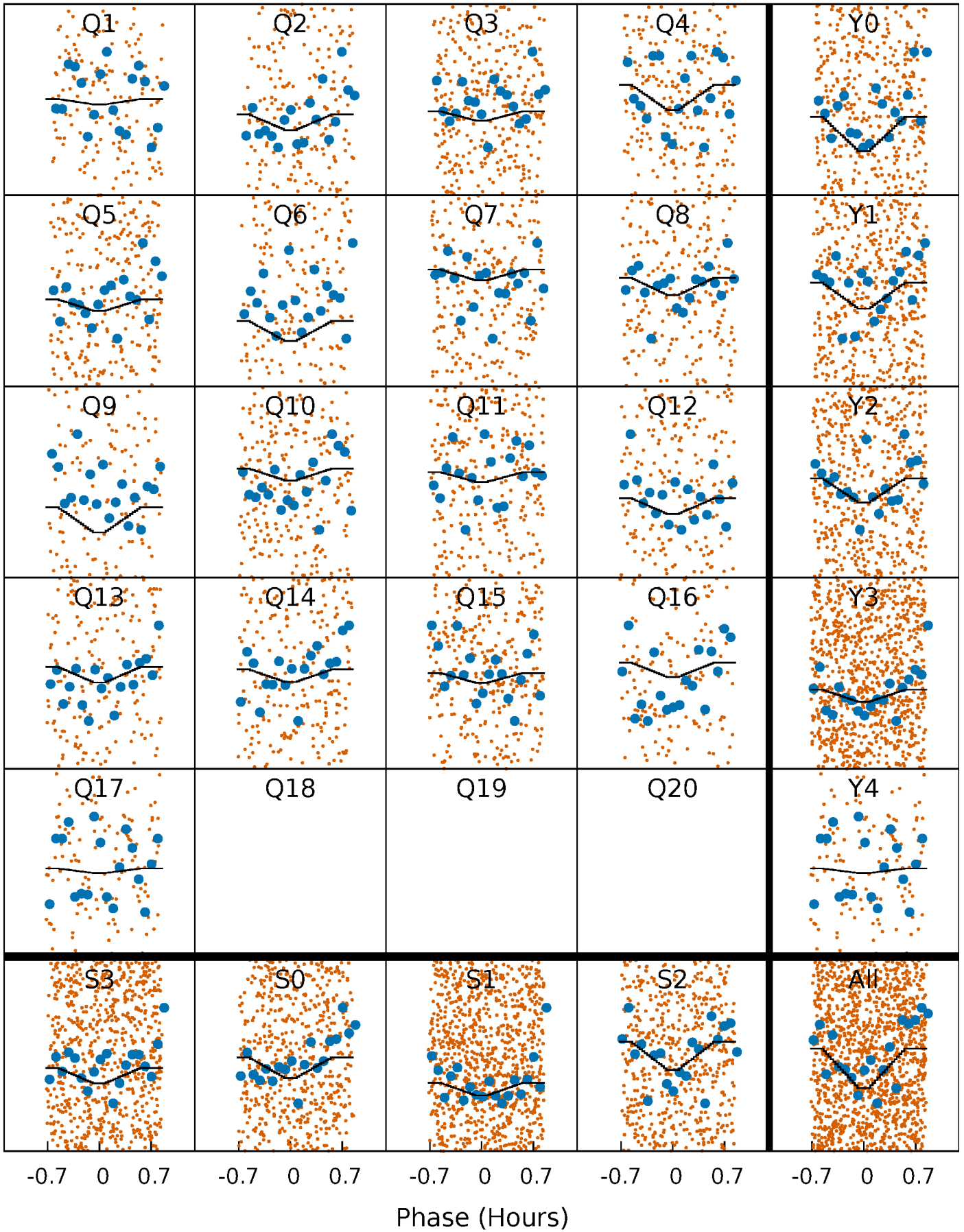
DV Quarter-Phased Transit Curves

TCE 010664703-03 P= 0.605647 Days $T_0=131.813082$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

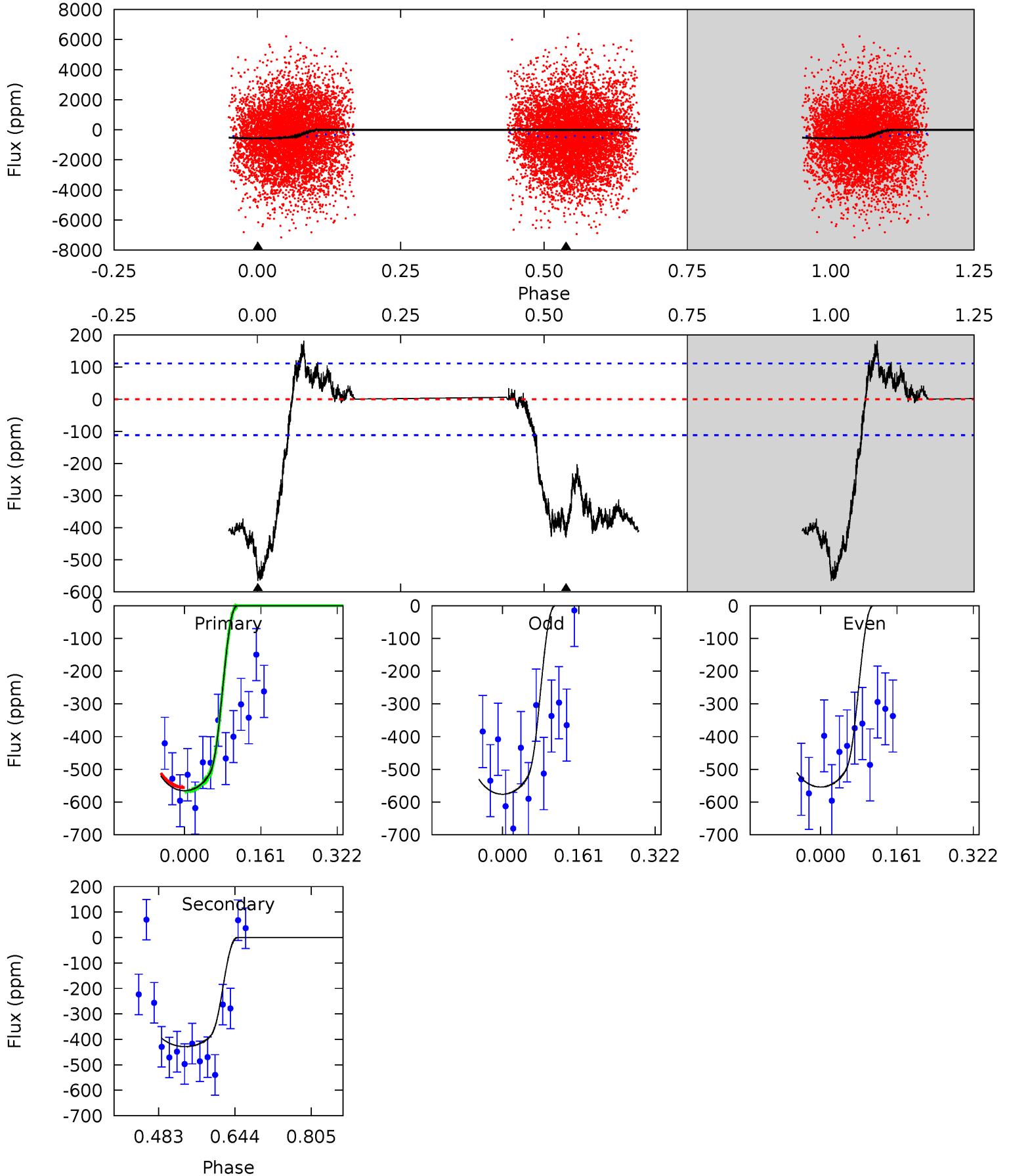
TCE 010664703-03 $P = 0.605678$ Days $T_0 = 131.808786$ (BKJD)



DV Model-Shift Uniqueness Test

010664703-03, P = 0.605647 Days, E = 131.207435 Days

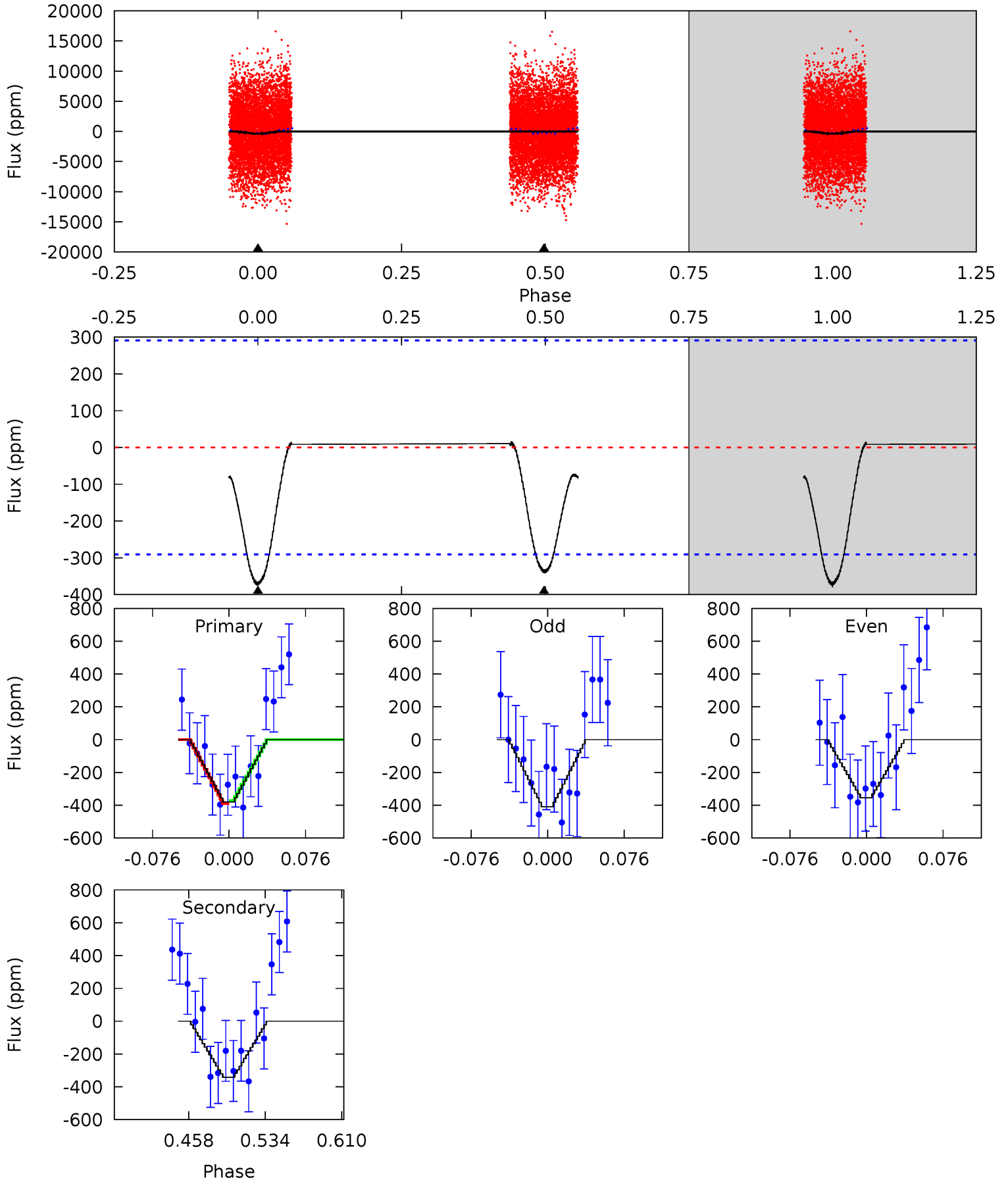
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	17.1	0	0	4.46	1.40	2.92	22.6	22.6	17.1	17.1	0.44	1.08	0.24	0.14



Alt Model-Shift Uniqueness Test

010664703-03, P = 0.605678 Days, E = 131.203108 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.04	5.44	0	0	4.62	1.77	0.58	6.04	6.04	5.44	5.44	0.43	0.85	0.04	0.14



Stellar Parameters For KIC 010664703

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7868^{+217}_{-353}	$3.683^{+0.459}_{-0.108}$	$-0.020^{+0.200}_{-0.350}$	$3.433^{+0.718}_{-1.555}$	$2.074^{+0.343}_{-0.514}$	$0.072^{+0.316}_{-0.025}$
	+3%/-4%	+12%/-3%	+1000%/-1750%	+21%/-45%	+17%/-25%	+437%/-35%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010664703-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-428 ± 25	$9.58^{+2.13}_{-2.40}$	6443^{+519}_{-766}	5929^{+630}_{-648}	$0.835^{+0.577}_{-0.258}$
Alt.	-342 ± 63	$7.26^{+1.72}_{-1.95}$	6517^{+488}_{-747}	6693^{+1035}_{-825}	$1.161^{+0.866}_{-0.412}$

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 $A_{obs} \gg 1.0$

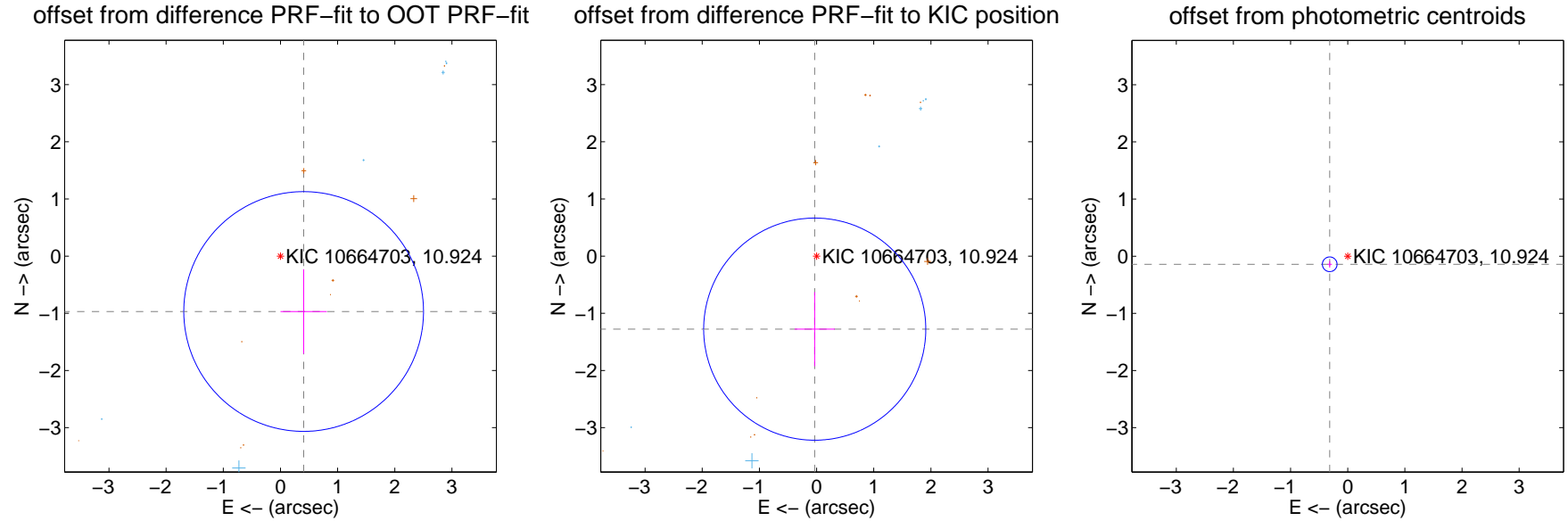
DV Centroid Data

Supplemental centroid analysis for 010664703-03. **Kepler magnitude: 10.92.** Transit SNR 19.91

There are 6 quarters with good PRF difference image offsets

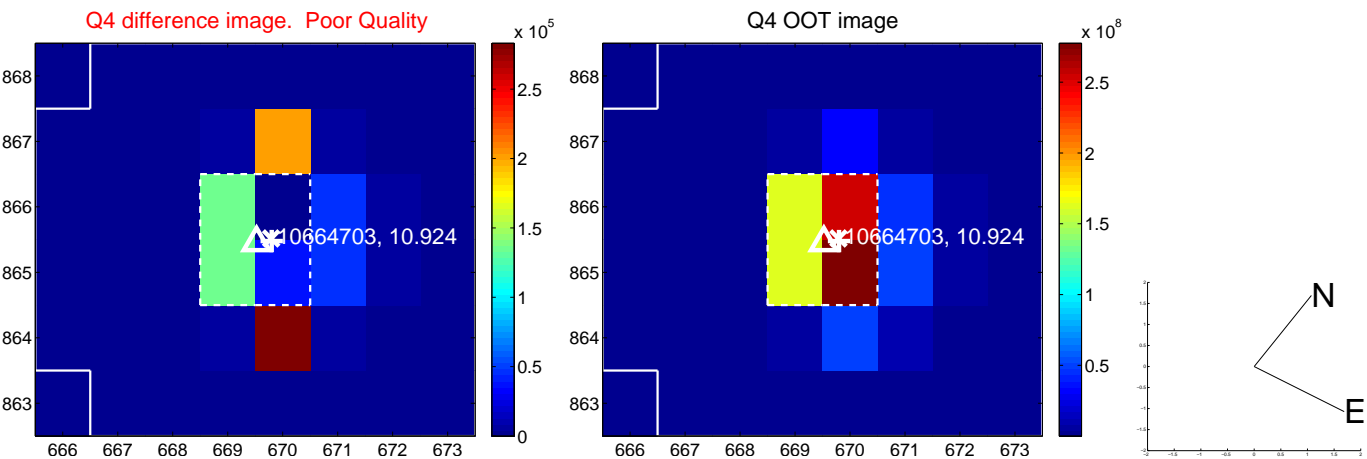
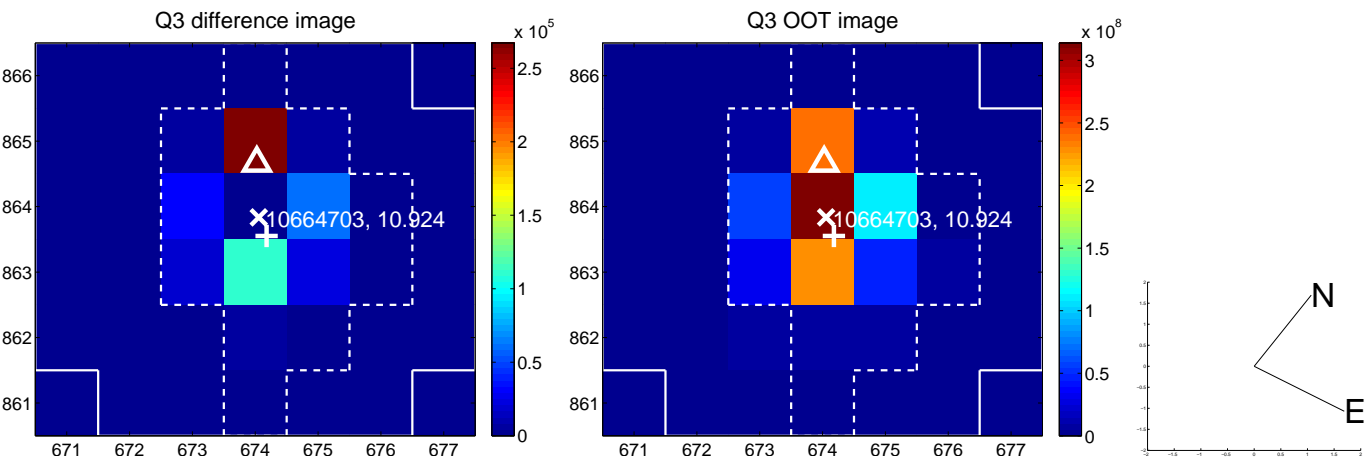
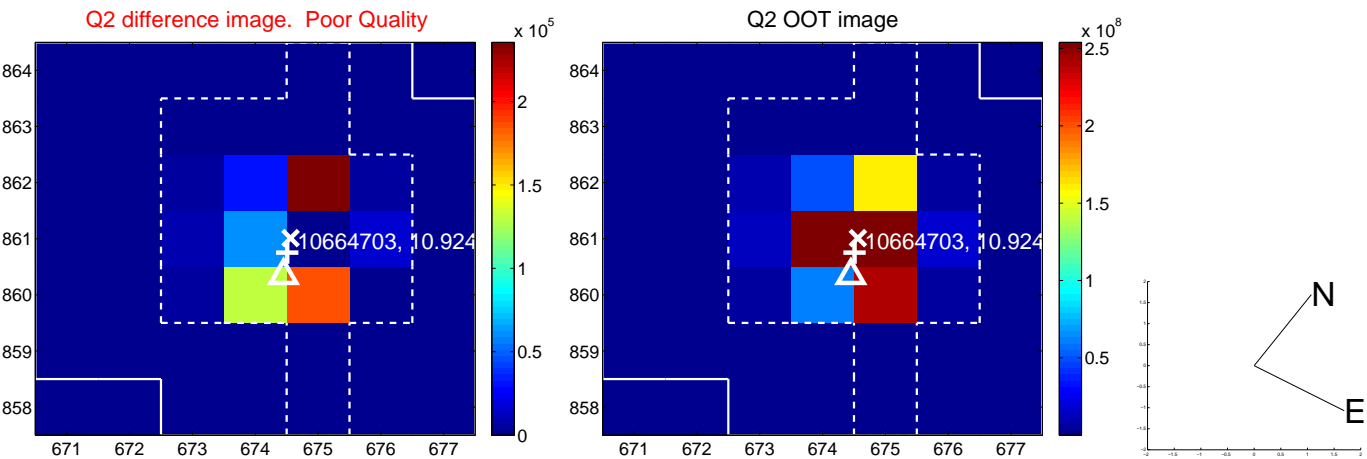
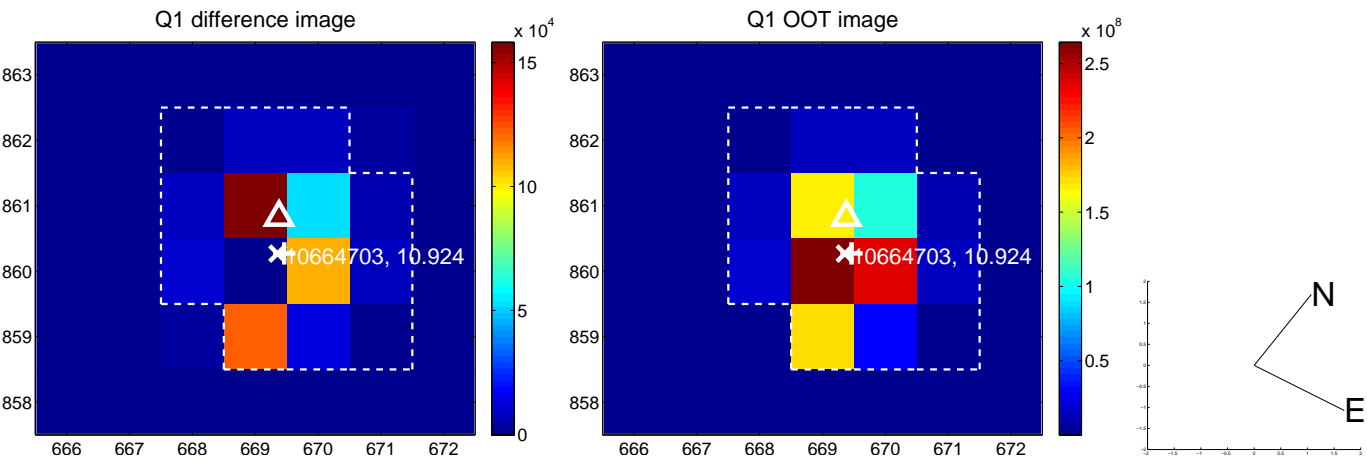
The direct PRF centroid is offset from the target star catalog position by about 0.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.050 ± 0.699	1.50	-0.406 ± 0.405	-0.969 ± 0.738
PRF-fit source offset from KIC position	1.277 ± 0.648	1.97	0.032 ± 0.352	-1.277 ± 0.648
photometric centroid source offset	0.35 ± 0.04	8.06	0.31 ± 0.04	-0.14 ± 0.06

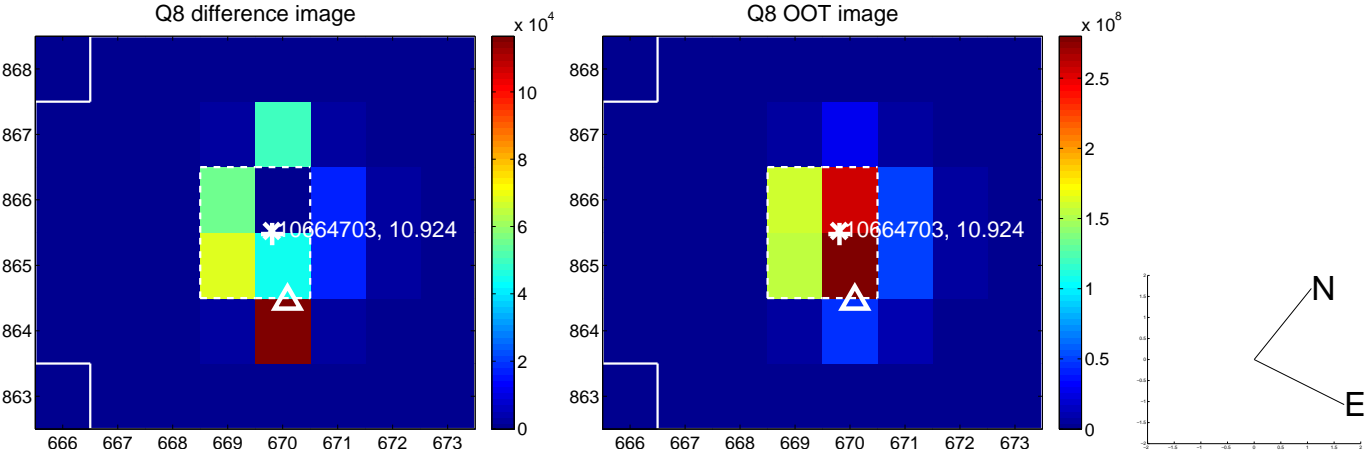
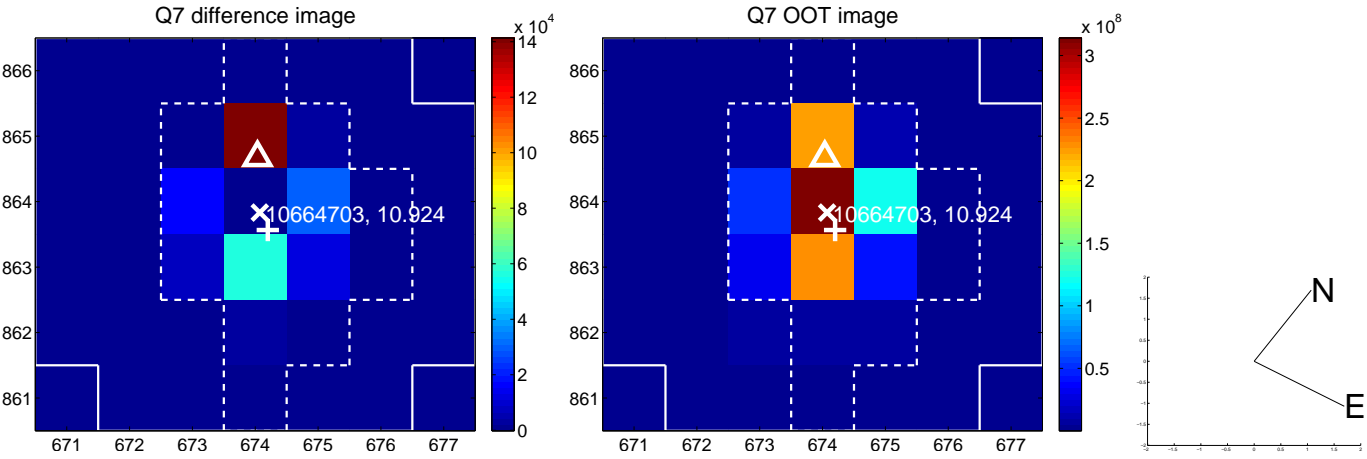
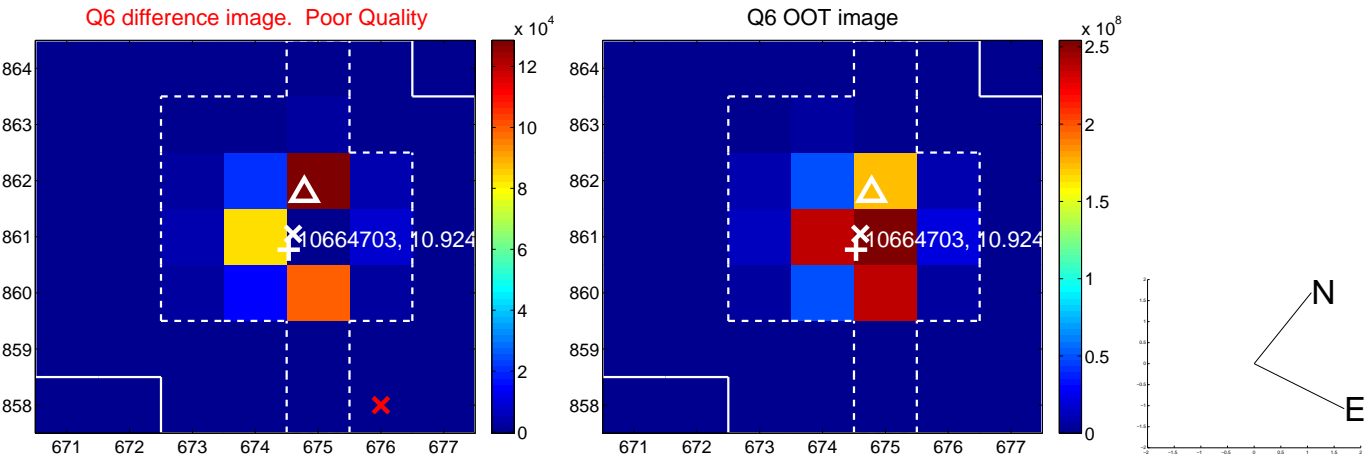
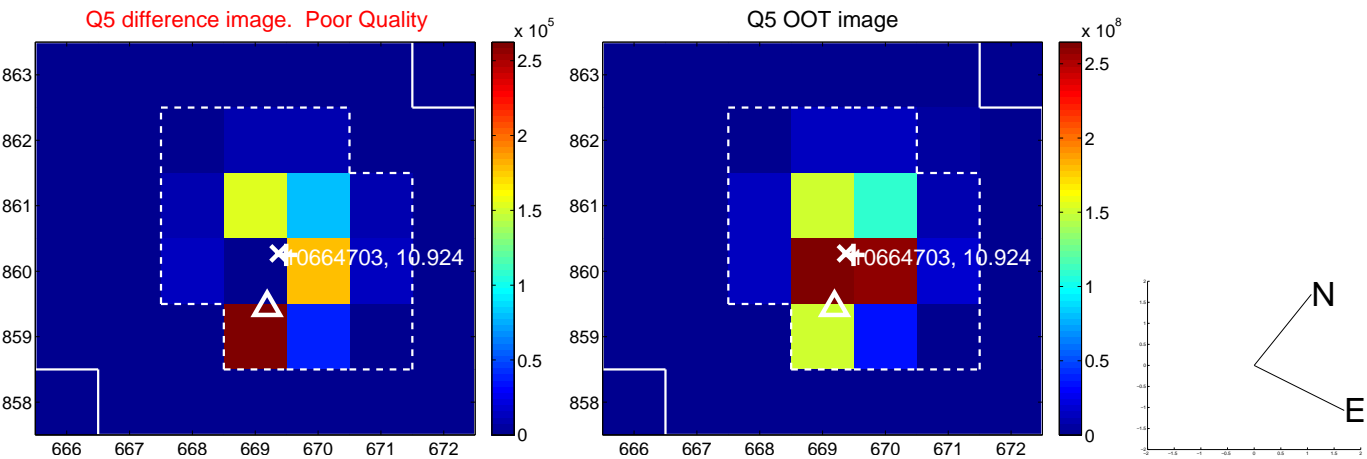


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

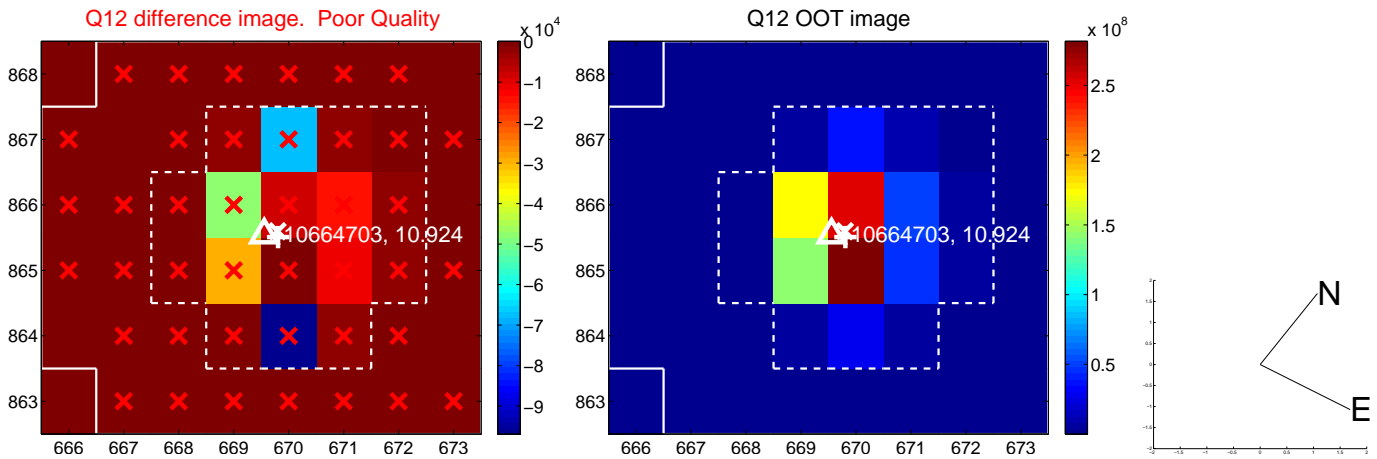
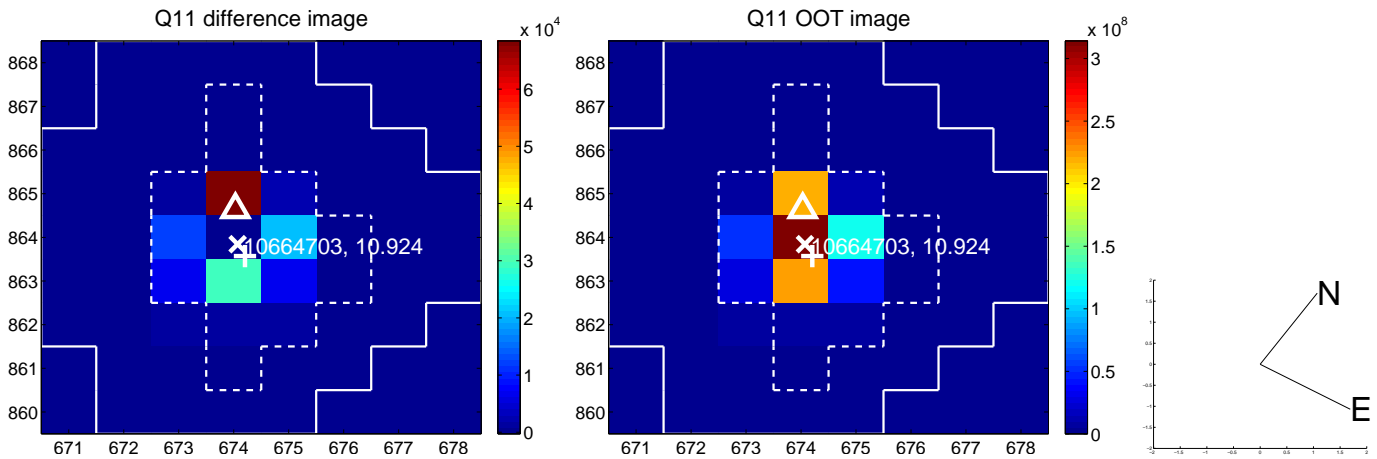
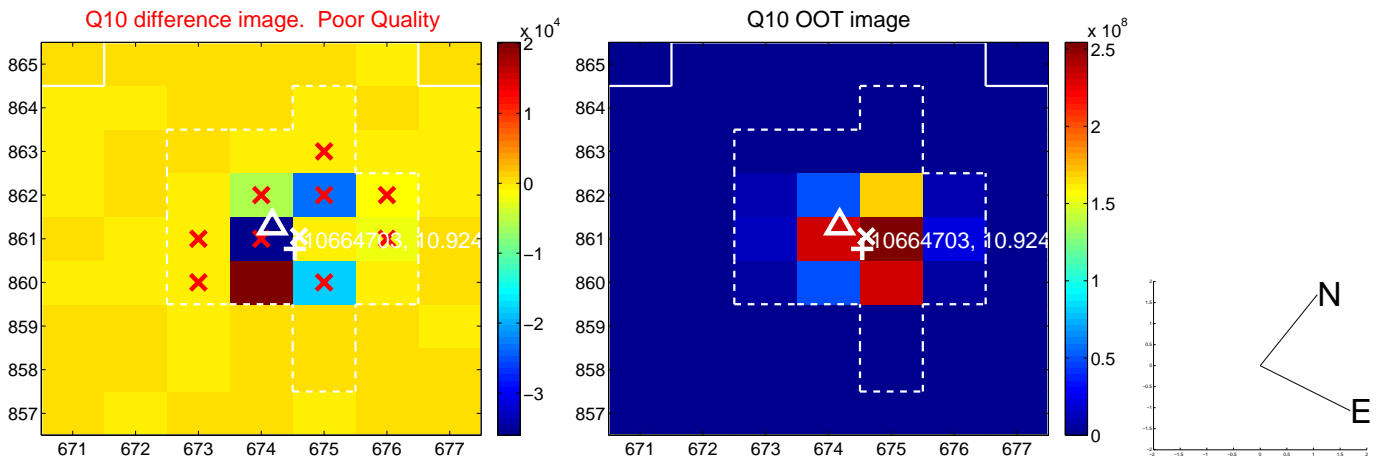
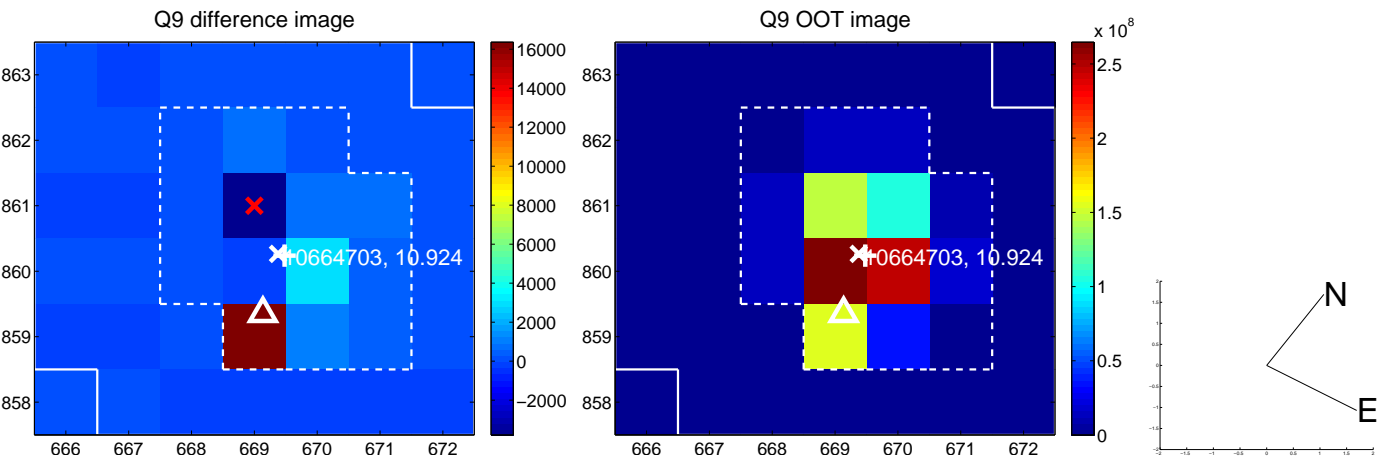
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



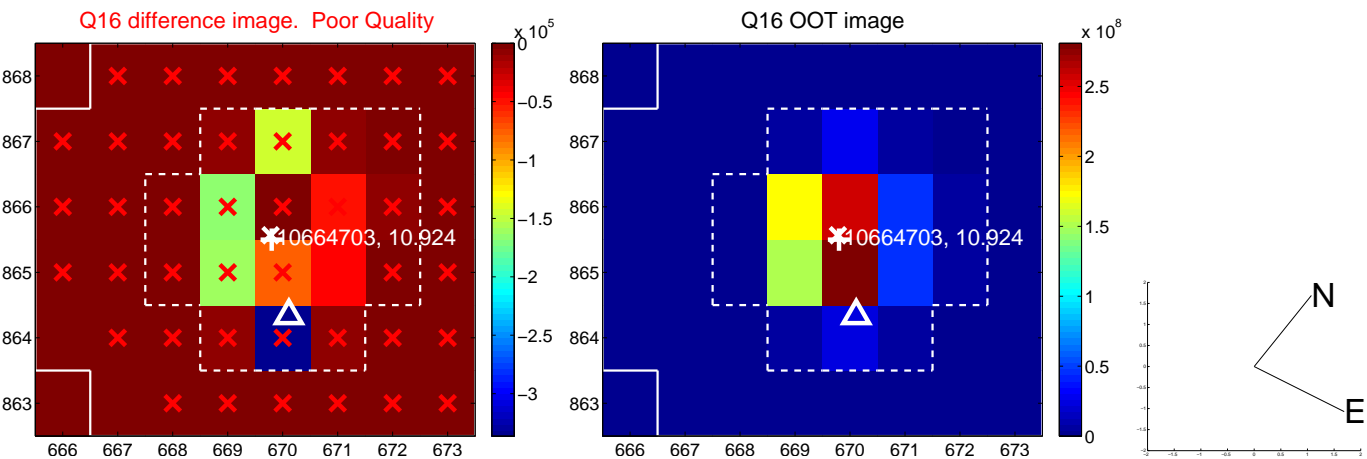
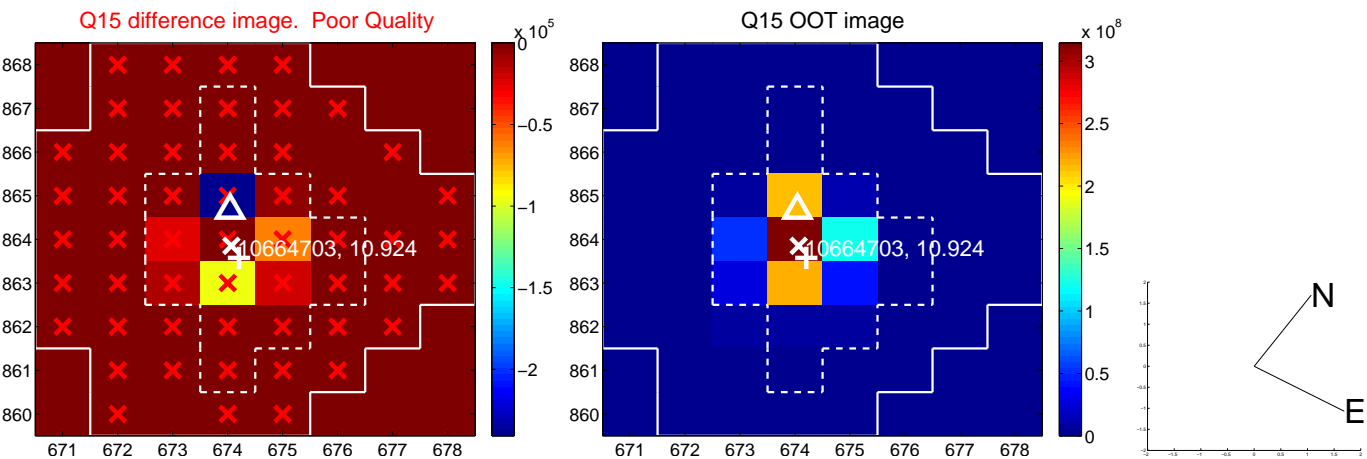
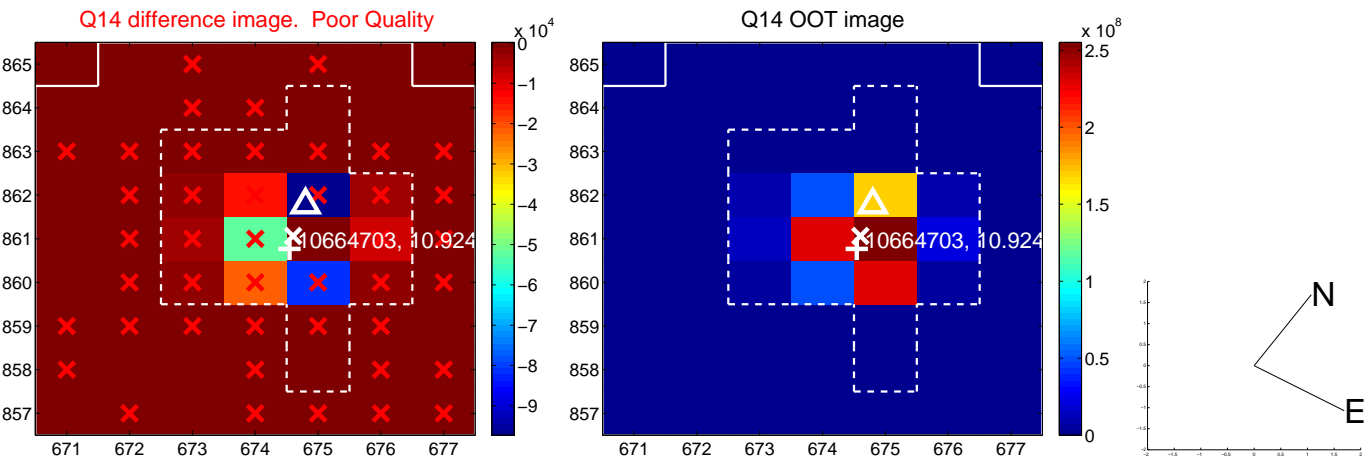
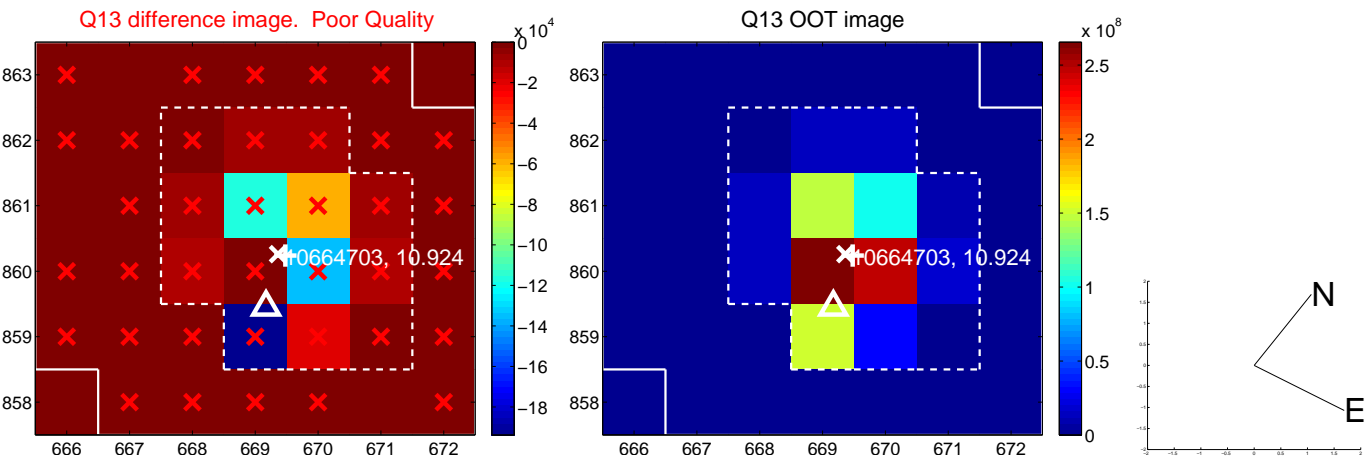
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



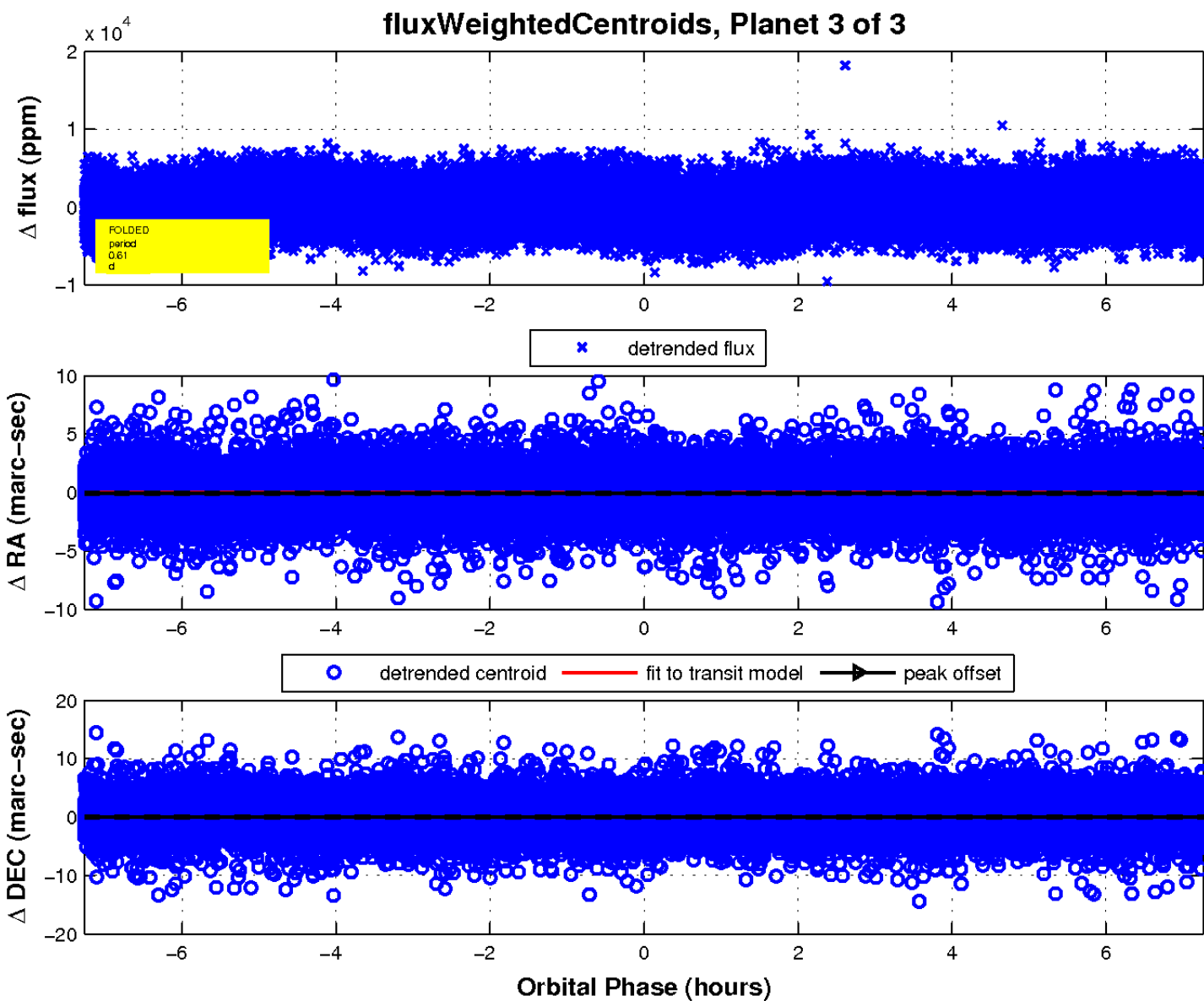
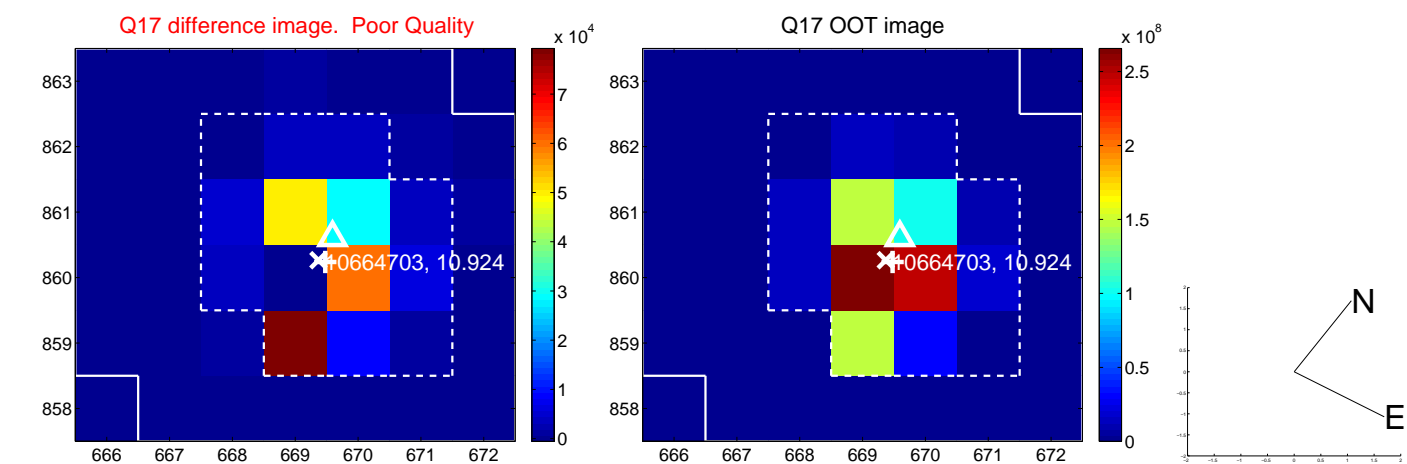
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

